

THE ACCOUNTING REVIEW

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SOME ASPECTS OF DEPRECIATION

By R. G. H. SMAILS, Queen's University

The position occupied by depreciation as a determinant of the profit or loss of an industrial concern is of equal importance to that of the inventory in the case of the mercantile firm, but while the public is awakening to the significance of correct inventory adjustments it appears still to embrace many delusions as to the nature and true significance of depreciation. The explanation of this lies possibly in the fact that depreciation, although a charge arising from the operation of tangible assets, has no reference to diminution of weight or volume and frequently no reference to any *apparent* physical deterioration. Confirmation of this view is to be found in the contrasting accuracy of the popular conception of depletion (i. e., exhaustion of wasting assets such as timber limits and mineral areas), for depletion is analogous to depreciation in all but one respect—it has an obvious physical basis.

Whatever its origin may be, this popular ignorance concerning depreciation is much to be regretted, for a balance sheet or any other accounting statement relative to an industrial concern is but half intelligible and may even be grossly misleading to any person incompetent to appreciate and criticize the policy (or lack of policy) of the directors with regard to depreciation. And yet it is by these statements that the investing public has of necessity to be guided in the distribution of its surplus funds, that is to say in the selection of the new industries which it will establish and the established industries which it will expand. That the public at large and not a small group of energetic leaders dictates the lines of industrial and commercial development of a nation is a fact that is sometimes overlooked; but realization of that fact brings with it acute sensibility to the urgency of a critical and enlightened public opinion. For these reasons I hope that I shall be pardoned

if I make no attempt in this paper to explore new ground but confine myself to a discussion of the present position. My plan is to adduce evidence of a commonplace nature to support my view that ignorance and its exploitation are rampant, and then by enquiring into the causes of this condition to suggest remedies for its correction.

In common with most other impecunious members of my profession I am besieged the year round with invitations to subscribe for shares and bonds in a variety of enterprises. The nature of the offer and the inducements advanced in three cases out of seven which I recently picked at random were as follows:

(1) The A Company, Ltd., offered preferred shares and stated: "The earnings of the Company for the past three years after deducting maintenance and repairs and available for depreciation and dividends have averaged 2.2 times the preferred dividend requirements."

(2) The B Company, Ltd., offered bonds and stated: "The net profits available for depreciation, etc., are estimated at 3.5 times the interest on this bond issue."

(3) The C Company, Ltd., offered bonds and stated: "Based on certified statements net earnings of the company available for interest on these bonds and depreciation have been 5.3 times the interest on this bond issue."

It will be noticed that in the first case (that of the A. Company) the reader is encouraged—and presumably expected—to believe that depreciation is analogous to dividends, a voluntary appropriation of earned profits; in the other cases he is encouraged to dismiss depreciation from his mind as a matter of no importance.

It is, of course, not possible to compute exactly the costs deliberately excluded in this manner, but in some part of each of the three circulars from which I have quoted there was given the appraisal value of the plant operated, and depreciation, if computed at the modest figure of five per cent per annum on such appraisal value would have reduced the stated profits of A. Company by forty-two per cent, of B. Company by forty-two per cent, and of C. Company by twenty-eight per cent. In other words, the operating profits were stated seventy-two, seventy-two, and thirty-nine per cent, respectively, in excess of their true amounts. All three issues were, in fact, successful, which suggests that the authors of these prospectuses were not mistaken in their low estimate of the public's powers of perception. It is regrettable under any circumstances that half-truths of this kind should promote flota-

tion. It is doubly regrettable when we consider that two of the issues in question related to bonds and not shares, for a prospective bondholder surely ought to realize that unless depreciation is recognized as an operating expense not only the interest on his own loan, but also dividends to shareholders, may be paid out of the proceeds of sale of assets which he supposes to constitute the security for his principal.

For my second piece of evidence I turn to the balance sheet of a large industrial company which was published only a few days ago in the Canadian press. In that balance sheet the buildings and machinery operated by the company were stated at eight million dollars and its "surplus after deducting all expenses of operation" at one and one-fifth millions. There was, in fact, included in "all expenses of operation" no charge whatever for depreciation.

There can be little doubt but that by this and similar balance sheets (for they are many) thousands of shareholders and prospective shareholders are blinded to the fact that the dividends which they have received, or hope to receive, are in part return of capital and not wholly income. It is true that the shareholder is not thereby robbed of anything that is his, but it would be a serious blunder to suppose that it is immaterial to him whether the so-called dividend which he receives periodically is a return *on* or a return of his investment. The omission of depreciation charges has the further effect of conveying an exaggerated impression of the success attending the directors' administration of the company's affairs, and also of exposing the company to income taxation on profits which do not exist. It is, therefore, scarcely an exaggeration to describe it as a deliberate fraud upon shareholders.

And yet not one of the documents from which I have quoted, nor of the many similar documents circulated, brings any remonstrance. How is it that the public does not rebel against this seeming conspiracy of obfuscation, and that the directors of industrial corporations can conjure with this item of depreciation without exciting the suspicion, much less the indignation of investors at large?

Failure to secure redress might be explained in part by the apathy of the investing public and in part by the inevitable weakness of their organization, but general obliviousness to the evil can, I think, be attributed only to ignorance. This ignorance is, however, not in all cases absolute. Possibly the majority of lay-

men have a sufficiently workable elementary knowledge of the subject to know that no true profits can be shown until revenue has been charged with an amount sufficient to cover such depreciation as has actually occurred; but their knowledge is not sufficiently well grounded to enable them to resist the subtleties of those interested in the inflation of profits. The favorable method of such persons is to disarm their audience by a frank admission of the necessity of charging such depreciation as has actually been suffered and then by specious argument to show that *in the particular circumstances in question* no depreciation has in fact occurred. The "circumstances in question" are usually either (a) that the market value of the asset involved is in excess of its book value, or (b) that the asset involved is still capable in any given period of doing as much work as it did when new.

Resort is most often had, in these days of rising prices, to (a), but (b) has by no means fallen into desuetude. Not many years ago a monograph was published by Mr. G. N. Webster with the arresting title, "Depreciation a Menace to the Public and the Investor." Typical of the illustrations by means of which Mr. Webster sought to lay the spectre of depreciation is this: "The earning capacity of a certain celebrated lawyer increased annually to the day of his death at the age of seventy-four. He probably never realized what a liar he was making out of the professional depreciationist." We must admit that our own powers of comprehension are as weak as those of the celebrated lawyer in question for we should have thought that death indicated the one hundred per cent depreciation mark so far as man as a tangible fixed asset was concerned. We cannot persuade ourselves to esteem equally an annuity of \$1,000 which is about to terminate and one which has fifty years to run, but evidently the author believed that the majority of his readers would be more accommodating. The unhappy part is that Mr. Webster was probably justified in his belief.

In my search for the cause of and remedy for the prevalent misconceptions I find myself tempted to ask in the first place whether our definition of depreciation is always as clear and convincing as it might be. In the popular and literal sense the word signifies a shrinkage in value (that is to say in exchange value) but in accounting it has a quasi-technical meaning subtly though completely different. And just as the difference between the popular and quasi-technical usage is the source of many popular delusions re-

garding pure economics so it may be with regard to our own branch of applied economics unless we proceed with the greatest caution.

Do we not too often speak of depreciation as "shrinkage in value due to wear and tear, obsolescence, etc.," leaving the layman (who inevitably associates the word "value" with exchange value) to solve the paradox of an asset bought in 1914 for \$1,000 shrinking in value steadily at the rate of five per cent per annum and yet possessing today a value of, say \$1,050? It is unavailing to ask him to distinguish this peculiar form of shrinkage from movements in exchange value, for the conception of an asset shrinking and at the same time expanding in value, even supposing it to have validity, is too abstract for him to grasp. My own view is that the conception lacks validity and that we ought in defining depreciation studiously to avoid all reference to valuation. I may be met here with the retort that depreciation charges do in fact result in the showing of fixed assets at their *true value as parts of a going concern*. But the value of a fixed asset is derived from the value of the services that it can render and is therefore the same whether the asset is already being employed in production or being offered for sale with a view to such employment, (subject, of course, to allowance for installation expenses). The justification for ignoring fluctuations in exchange value of fixed assets lies not in the irrelevance of those fluctuations but in the fact that as the cost of the service rendered from time to time is set off against the current market value of those services (as reflected in the selling price of the commodity produced) the realized portion of the rise or fall in exchange value is automatically and equitably amortized and adjusted in the proprietorship account.

I therefore repeat my assertion that any association of depreciation with evaluation should be avoided. Depreciation charges never have functioned nor ever will function—otherwise than accidentally—as evaluation adjustments. Depreciation is the cost of a service rendered. This suggests a definition which I believe atones by precision for what it lacks in elegance, viz., "Depreciation is the prime cost of the service rendered by a fixed asset during any accounting period and is in the same ratio to the original cost of the asset as is the quantity of service rendered during that accounting period to the total service of which the asset is estimated to be capable." Surely if our exposition of depreciation began with some such definition as this, if we spoke in terms of cost

rather than value, we should evoke a truer conception of depreciation and be providing means of resisting the specious and insidious claim so rife today, that an asset which has an exchange value in excess of its original cost has not depreciated.

As it is we not only fail to make clear this distinction between cost and value to others, but we sometimes appear to disregard it ourselves. Thus it is not uncommon for an accountant to state that repairs in the nature of replacements to the extent that they arrest deterioration and appreciably prolong the life of an asset should be charged against the depreciation reserve. Now the depreciation reserve is the measure of depreciation accrued to date, that is to say of the cost of the service rendered in the past. How can the cost of that service be affected by anything done subsequently? If there is bought in January, 1915, for \$1,000 an asset which will give twenty years' service, then the cost of the service rendered by December, 1924, will be \$500. If in January, 1925, \$200 is spent in replacing a part of that asset so that its life is prolonged another four years this expenditure does not reduce the cost during the years 1915-1924. It merely prolongs the term over which the asset will give the same annual service at the same annual cost, viz., \$50; it should, therefore, in theory be added to the cost of the service remaining to be rendered, not be deducted from the cost of the service already given. I concede that it may be practically expedient to charge replacements of this nature to reserve because the computation of depreciation is thereby facilitated, but we ought to realize (as perhaps we do not) that in so treating them we are adopting an expedient that does not exactly conform with the theory.

I am tempted in the second place to ask whether the conventional exposition of double-entry theory is not in some measure responsible for the widespread belief that there is something ethereal about depreciation; that it is not a definite operating cost as is rent or wages, and that insistence on its inclusion is academic.

In what ways can the exposition of double-entry theory be improved? I have only one suggestion to make and that suggestion may be regarded as highly unorthodox. I believe that the distinction commonly drawn between expense or "nominal" accounts, and asset or "real" accounts must be abandoned, and that the "mixed" account must accompany its parent. Such distinction is artificial and hence gravely misleading (and incidentally so long as we re-

tain it we are applying in general accounting, principles which are at variance with those which we employ in cost accounting). The student should, instead, be taught that *every* expenditure incurred by a business results in the acquisition of an asset of some kind or another, that *every* type of asset so acquired (with the exception of land as a site) contributes something to the exchange which we call a sale, and that the main problem of accountancy is to determine what portion of each type of asset has been contributed during the accounting period and the cost of that portion. He should not be lead to think that there is something radically different in the treatment, say, of the account in which rent charges are entered and of the account in which the cost of a building is entered, but should be induced to approach every account whether it be Wages, Insurance, Machinery, or Buildings with the same inquiry, viz., what portion of this asset, or of the service which it can render, has been given up in exchange? It is true that he will have to apply different methods in ascertaining the consumption of different classes of assets, but he will readily perceive the reasons for that differentiation.

The student whose theory is developed in this manner will realize that depreciation is just as much an operating cost or factor in the exchange as are wages or rent and that it is ultimately paid in hard cash just as are those other items. He will appreciate the complete analogy between "writing off" one-third the cost of a three-year insurance policy and one-fortieth the cost of a building which, according to technical experts, will have a useful life of forty years.

My third and last suggestion is a palliative for the abuses resulting from ignorance rather than a remedy for the ignorance itself. As Professor Ripley recently remarked, the stock exchanges of to-day (and more particularly the New York Stock Exchange) are evincing a laudable disposition to accept their responsibilities as the great organized security markets of the world. The New York Exchange by its refusal to list the securities of those corporations which fail to put on file all material information with regard to their assets, liabilities, and finances has succeeded in throwing light on spots which neither law nor force of public opinion could have reached within decades. The Toronto Stock Exchange quite recently adopted the policy of refusing to list securities offered to the public on the basis of balance sheets dated more than four

months prior to the offer. I see no reason why these and other exchanges should not employ a similar weapon to secure a clear and unambiguous statement of depreciation costs (or depreciation policy) in the published statements of any industrial concern, the finances of which are dependent upon popular support.

It may be remembered that the thoughts I have expressed were provoked by two types of statement, one a statement of operating profits and the other a balance sheet, from both of which depreciation charges had been omitted and both of which I accordingly stigmatized as misleading. I should like, in conclusion, and in order to anticipate my critics, to define more exactly my attitude towards those statements.

With regard to the statement of operating profits it may be argued that while depreciation is an actual fact its precise amount is necessarily a matter of conjecture, and it is therefore better to omit it altogether and acknowledge the omission than to allow the reader to confuse conjecture with fact. My reply to such a suggestion would be that the reader could not possibly be misled if he were informed how much was fact and how much conjecture, in other words if depreciation were shown as a separate item. The sum so shown should be—and should be described as—the amount estimated either by the directors of the company or by outside technical experts, and should be based on the value of the plant, etc., *as stated in the prospectus*. Or as an alternative there might be shown the sum actually allowed or estimated to be deductible for income tax purposes. There are obvious objections to this course—in most cases it would result in understatement of depreciation—but it would nevertheless provide a common rule and might serve well enough until a better method were evolved.

With regard to the offending balance sheet let me say, unequivocally, that in my opinion no balance sheet which fails to acknowledge depreciation can correctly show the true state of affairs of an industrial concern. I am not so academically minded as to insist that a fixed asset which is worth more on December 31 than on January 1 preceding should be written down in the balance sheet but I do insist that if the balance sheet is to be an effective instrument of control there must be shown separately on it the cost to the business of the service rendered by that asset during the accounting period and the altogether fortuitous and anticipated

profit resulting from its enhanced exchange value—even though the one exactly offsets the other.

Consider the case of a merchant who buys \$1,000 of goods and sells one-half of them. Prices have risen one hundred per cent so that the market value of the inventory is \$1,000. Would he say that the goods which he had sold had cost nothing? I think not; and no more should he contend when he has used up one-half of the serviceability of a fixed asset that that service has cost him nothing because the serviceability remaining has an exchange value equal to the original outlay.

It appears to me extremely important that the logic of this distinction between operating and fortuitous profits should be admitted by accountants, for we live, as I have already remarked, in a time of spectacular rises in price levels, and unless the admission is made depreciation will come to be regarded as an anachronism.

I have in front of me index figures prepared by Aberthaw & Co. which show that a six-story reinforced concrete factory building erected in 1914 for \$100,000 would cost \$185,000 to replace in 1925 and \$197,000 in September of 1926. The tale of machinery and other productive agencies is much the same. If those who advocate the omission of depreciation charges had their way a large part of the commodities produced today and for some years to come would—presumably—enjoy the free use of the whole of this productive capital, and would contribute not one cent to its ultimate replacement.

In all things, however, the accountant must exercise common sense. There are some industrial concerns—and not only those in the public utility field—which spend continually on repairs and replacements and which charge such expenditures to revenue in their entirety for the perfectly good reason that it is not possible currently to determine how far such expenditures are repairs pure and simple and how far they are betterments.

It is usually possible to judge from the nature of the industry and the policy of the firm whether such conditions are likely to obtain in any particular instance and the plant to be maintained at full operating efficiency for an indefinite and indefinable period. Where that is the case the wisest procedure is periodically to revalue the undertaking as a whole and to omit any charge for depreciation if it appears from the revaluation that the betterments charged to revenue are at least equal in amount to the estimated

depreciation. The appraisal to be accepted must, of course, be made by an outside professional valuator at stipulated intervals, say every three years, and an attempt should be made by the judicious use of index numbers to convert the result into terms of original cost.

If, under these circumstances, a balance sheet is published without any apparent provision having been made for depreciation there should invariably be attached (either as a footnote, or in the directors' report) a concise explanation of the omission. To include such an explanation is to pay graceful—if sometimes undeserved—tribute to the intelligence of the investing public. To omit it is to presume that no part of the investing public is capable of taking an intelligent interest in what are, after all, its own affairs.

SURPLUS ARISING THROUGH REVALUATION

By O. R. MARTIN, *University of Nebraska*

That fixed assets should appear in the accounts on the basis of their original cost, adjusted only for depreciation, has been a much revered canon of accounting, and much has been written and many considerations urged in support of this rule. Among the affirmative arguments should be mentioned the following: (1) original cost represents the value of such assets to the enterprise as a going concern; (2) writing up the value of fixed assets necessitates a corresponding credit to surplus and such credit constitutes an unrealized profit; (3) changing values of fixed assets are due in a large measure to the changing value of the monetary unit and it is both unwise and impractical to attempt to use the dollar as a unit of measure and at the same time endeavor to allow for the fluctuations in its purchasing power; (4) accounting is fundamentally a system of recording logically the historical facts of a business enterprise and this record will be most accurate and trustworthy if there be strict adherence to actual financial transactions and no attempt made to incorporate into the accounting structure the hypotheses and postulates of economic analysis or the dictates of individual judgment; (5) the practical difficulties inherent in the task of measuring current economic values are such as to invalidate the use of accounting as an effective instrument of business control.

These and other considerations have not remained unchallenged, especially in recent years. University teachers of accounting have been active participants in the discussions of the question and in that connection have made outstanding contributions to the field of accounting theory and practice. The purpose of this paper is not to present new theories or analyses bearing upon this particular accounting problem but rather to examine it in some aspects of its practical setting. The chief emphasis to date has been on the philosophical or theoretical side. An analysis has been made of the fundamental program of accounting, its functions, and the principles underlying the procedure through which that program is made effective. These principles have been carefully examined in the light of economic theory with a view to ascertaining the points of agreement and the points of difference and the possibility of

harmonizing the principles in these two intimately related fields.

The outcome of the discussion to date is uncertain. The facts with respect to practice, however, are not so uncertain. In partial support of this statement one need only refer to most of the recent books on accounting. While the writers as a rule are cautious in their statements there is a general recognition of the fact that fixed tangible assets are being revalued in many cases in order to bring book values into harmony with current values, and they seem to be interested primarily in emphasizing the point that where accompanying recognition is given to appraisals this shall be done without violating other fundamental principles of accounting, that, in particular, the "unrealized" profit or loss resulting shall not be merged with earned surplus where it may become the basis for dividends or be used to conceal insufficient operating profits or even losses.

Every practitioner of accounting is aware of the activity of professional appraisal companies and the extent to which appraisal reports are finding their way into the possession of his clients; and he is continually confronted with the request to incorporate the findings of these reports in the accounts. The American Appraisal Company cites the results of a questionnaire to which they received 2,920 replies indicating the uses to which their appraisal reports were being put by their clients. They report as follows:*

| | | | |
|----------------------------|-------|--------------------------------|-------|
| Placing Insurance | 1,922 | Adjustment of Fire Loss | 381 |
| Finance | 580 | Sale of Property | 269 |
| Purchase of Property | 105 | Accounting | 1,198 |
| Merger | 184 | Reorganization | 255 |
| Federal Income or | | Federal or State | |
| Excess Profits Tax | 675 | Inheritance Tax | 70 |
| State Income Tax | 191 | Local Tax | 200 |
| Rate Making | 41 | Condemnation Proceedings | 24 |
| Litigation | 24 | Miscellaneous | 256 |

Even the support of no less an authority than Professor Ripley is claimed by those who favor giving effect to current economic values in the accounts, although it is doubtful if his article in the September, 1926, *Atlantic Monthly* can be so interpreted. What Professor Ripley does urged is the giving of fuller information to stockholders so that there may be no manipulation by an inner ring to their own benefit and at the expense of those not in possession of all the pertinent facts.

*From "Clients' Service Bulletin," Vol. III, No. 5, January, 1926.

Clearly the advisability of recording current economic values in the accounts is becoming more rather than less of an issue and in this fact justification may be found for a consideration of some of the more immediate problems involved.

Before proceeding to a discussion of these problems there should be a reference to the factors which may be responsible for an increase in tangible asset values. Mention may be made first of the so-called unearned increment. This is the increase in value due to the growth of population, the development of the particular community, the presence of certain utilities or services, the nature of the utilization of adjoining tracts of land, and similar forces. Usually the unearned increment is considered as particularly applicable to land or site values. Increased values may also be due to changes in the price level, and most of the discussion to date has given special consideration to this factor. Changing prices may be due either to changes affecting the supply or demand of particular commodities or they may be due to a change in the value of money, or both causes may be operative. The prices of particular commodities rarely ever change in the same ratio as the general price level, and the fact that there are two variables present adds greatly to the complexity of the situation. The particular utilization of an asset may in itself cause an increase in the value of that asset, as when a manufacturing concern builds its plant in a suburban or rural district. Not only is the value of surrounding land enhanced but also that of the land owned by the company and upon which its plant is erected. Evidence of this fact may be found in the secret negotiations which such concerns frequently employ to acquire title to the land desired. It is believed that this particular form of enhanced value, as in the case of the unearned increment, relates primarily to land or site values. Increased plant values may also be brought to light through uncovering accounting errors consisting in treating capital expenditures as revenue expenditures.*

It is not the purpose of this paper to discuss these various factors in themselves, but it is believed that no attempt to decide the merits of a proposal to give effect in the accounts to increased values should be made without a recognition of the particular factor or

*No attention need be given in this connection to value accretion in the form of goodwill, patents, franchises, and other intangibles, where the earning capacity of the particular concern is the controlling factor, since it is intended to confine this discussion to the revaluation of tangible fixed assets.

factors responsible for such increase. The resulting economic situation certainly will vary considerably depending upon which factor is dominant in the particular case.

Not all changes in value are upward, of course. Aside from depreciation, asset values decline as well as increase; and this element in the situation must not be left out of consideration.

At the outset consideration should be given to the question as to whether or not a revaluation of assets is more proper under some economic conditions than others. Such a question has in it the suggestion that interest in the matter is only temporary and that as a practical problem of accounting it does not and will not occur regularly. In his latest book* Professor Paton makes two statements bearing upon this aspect of the situation. In the first of these he says: "A policy of regular revaluation of fixed assets in use in terms of either advancing or declining replacement costs is also questionable." Further on in the same paragraph is this statement: "It should be acknowledged that there is much force in the contention that in times characterized by serious price movements fixed assets should be revalued on the basis of replacement costs and depreciation charges should be correspondingly adjusted so as to insure the accumulation of funds sufficient to maintain the plant from a physical or managerial standpoint."

Certain it is that the interest in this phase of accounting has been greatly stimulated since the war as a natural consequence of the extensive change in the price level which has come about in that connection. Every student of business finance will agree that a sound financial policy demands the maintenance of the economic capital through current earnings and also that such earnings should provide the additions to capital necessary for a normal growth; and when substantial advances have taken place in the general price level the extent to which the economic capital of a concern may be depleted through a failure to make provision for replacement on the advanced price basis is noticeable and of considerable consequence. The distinction, however, between the situation under such conditions and the situation when price advances are of lesser extent is merely one of degree and not of kind. If it is a proper procedure to take current values of fixed assets into account when there are serious upward price movements, logically it is a proper procedure to take account of smaller price advances.

*"Accounting," p. 339.

Of course, the failure to make such provision in the accounts and in the financial policy of an enterprise is not so serious as a rule in the latter case as in the first; but in the case of assets of a long service life, such as buildings, a failure to take account of a slow but more or less constant price advance may be just as serious as the failure to take account of a sharp advance in the market value of assets having a short period of usefulness.

Is the growing use of revaluations a favorable or unfavorable tendency in the light of present economic conditions and trends? This question is raised in order to emphasize the dependence of the value of fixed assets, once acquired by a concern and incorporated into its plant, upon the earnings of that concern. These earnings in turn are directly affected not only by the quality of the management and other internal factors but likewise by the general operation of economic and other forces outside of the immediate concern. Certainly no consideration of the value of particular assets is complete that does not take into account these general economic conditions and tendencies.

To begin with, it seems clear that the values of particular assets today are more unstable than they have been in the past. Especially is this true of industrial plant values. It is not necessary to make an exhaustive analysis of the responsible factors. The transition from a seller's market to a buyer's market is in evidence on all sides, and in many lines the situation has become acute. Quite generally our productive capacity is exceeding the requirements of the market; and such devices to expand the market as installment selling are certain to reach their limit in time. The political and economic complications of Europe provide an element of uncertainty for the present; and if the policy of collection of our foreign debts is carried to completion business in this country must be prepared for some radical readjustments. It is not doubted that such readjustments will be made, and successfully in the end, but the short-time as compared to the long-run effects are certain to bring about much instability of economic values.

More permanent in character are the effects of our rapid scientific development, with the consequent speeding up of obsolescence, both as applied to equipment and to commodities. Testimony is available from all lines of business showing the rapid shifts taking place in the demands for commodities and services and the resultant uncertainty of earnings.

Is a revaluation of fixed assets a more suitable program in the case of certain industries than in the case of others? There is much to support the proposition that, of the various types of asset values, the unearned increment is the most substantial, particularly since it applies to land or site values. Therefore, whenever such values constitute a significant part of the fixed assets there would appear to be the most justification for taking current values into the accounts. That is, it is in those types of business in which land or site value constitutes an important item among the fixed assets that the argument in favor of revaluation has its greatest weight. Retail merchandising concerns fall in this class since the significance of site value is much greater in their case than it is with either wholesalers or manufacturing concerns.

With respect to site value there is also no question of depreciation and consequently no problem of replacement. Here the matter is largely one of asset values, and, perhaps one may say, of a relatively permanent increase in net worth, even though not realized through a definite transaction. In the case of assets subject to depreciation the emphasis is more properly upon the problem of replacement. Also it may be urged that the effect of increased site value upon earnings is more direct in the case of retail merchandising concerns than in other cases, and it is essential that a clear differentiation be made between the earnings resulting from the increase in site value and the earnings resulting from the merchandising operations.

Care should be taken not to confuse the site value of land with the value of land as a productive agent, as in farming. Nor should there be any assumption that site values always change upward, since that by no means accords with the facts. Further, even with retail concerns the particular utilization of the site is a controlling factor, as the type of building may easily neutralize the increase in the value of the location.

Public utilities have been excluded from this discussion since the problem of valuation in this field has many aspects which are distinctly different from those appearing in other types of business concerns.

If assets are to be revalued, does the present type of appraisal provide a suitable basis for that purpose? There is no intention in raising this question to cast any unfavorable reflection upon appraisal reports as such, but merely to consider such reports in the light of their suitability as sources of values to be incorporated in the ac-

counts. Their usefulness for the many other purposes to which such reports are put is not here questioned.

Usually appraisal reports provide the so-called "sound value" of the assets. The sound value of an asset usually may be defined as the cost of reproduction, less an allowance for depreciation based upon its present state of serviceability. In the case of most machinery and equipment the cost of reproduction new may be determined with a reasonable degree of accuracy. Reconstruction costs of items for which there is no regular market price, however, such as plant buildings, are not so easily ascertained. The customary plan is to analyze such assets into their structural elements and apply to these a series of unit costs. These unit costs are obviously hypothetical in character, although presumably based on a study of actual conditions; and actual costs frequently vary widely from estimated costs. As evidence one may point to the wide discrepancy which exists between the bids of different contractors or supply firms, or between actual costs and the estimates of the architect. Even the actual cost of a contractor frequently varies considerably from the estimated cost on the basis of which the contract was secured. The relative skill and strength of buyer and seller, the intensity of competition in certain localities or in certain lines, and other factors, make for wide variations between quoted prices of material and labor and the prices actually paid. In fact, it can probably be demonstrated that unit cost figures used in appraisals are commonly higher than actual costs.

In addition to the unit direct costs, one loading for contractor's profit and another loading for carrying charges, organization expenses, supervision, contingencies, and the like, are customarily made. These may amount to as much as twenty-five per cent of the direct costs of construction, and obviously contain many items of a distinctly hypothetical character.

The cost of reproduction new figure, however, is usually more reliable than the depreciation figures, especially for purposes of account revision. Professor Kester* has pointed out the difference between the engineer's conception of depreciation and the accountant's conception. To the engineer an asset is a productive instrument and he views depreciation largely from the standpoint of its effect upon operating efficiency. The value he usually measures in terms of serviceability. The accountant's point of view is that

*"Accounting Theory and Practice," Vol. II, Chap. XI.

of apportioning the loss in asset value over the various fiscal periods constituting its useful life on some equitable basis. The engineer is looking backward in his consideration of depreciation while the accountant is looking forward. The condition per cent of appraisal reports is essentially the engineer's conception and not the accountant's, and consequently cannot safely be used by the accountant for correcting his depreciation figures or for ascertaining the probable future life of particular assets or classes of assets. An examination of successive annual appraisal reports reveals that assets are commonly not depreciated more than forty to sixty per cent before they are discarded or otherwise disposed of. Only as an indication of the average useful life of particular kinds of assets under the working conditions of a particular plant can the depreciation data contained in many appraisal reports be advantageously used for accounting purposes, and this information is obtainable only after noting the period elapsing between the time when the asset first appears in the appraisal reports and the time when it is dropped.

The common opinion prevailing in many circles concerning the highly subjective character of appraisal values should not be overlooked by the accountant. Mr. Thorne Browne, then chairman of the Nebraska State Railway Commission, in an address before the American Bar Association in Detroit in 1925 refers to such reports in the following terms. "As a matter of fact we all know that the door is a wide one, and as as to par stock is limited only by *the imagination of engineers* in setting up revised plant accounts and such restraint as may be legally placed upon the corporation in the issuance of stock equal to the elevation brought about in the assets."

Every practicing accountant is familiar with appraisal reports which on their face indicate clearly the limitations of the figures contained therein. The writer has before him at the time of writing this paper the certified balance sheet of a corporation prepared by one of the foremost accounting firms of the country. The report shows capital stock outstanding of three and three-quarters million dollars. The earned surplus is slightly over four hundred thousand dollars and the capital surplus is six hundred thousand dollars. The certificate states that "Capital surplus represents the revaluation of certain assets and contains the unrealized appreciation." A footnote appended to the balance sheet reads thus: "By giving

effect to appraisals by — Appraisal Company, indicated per contra, capital surplus would be increased to approximately \$4,968,000." In passing mention should be made of the fact that the contra reference in this footnote is a splendid example of the use of current values in balance sheets when such values have been made the basis of bond issues. One of the bond issues outstanding amounts to seven hundred thousand dollars, and is secured by property costing a little less than six hundred thousand dollars but having an appraisal value of over two and one-half million dollars. The cost figures of the property are extended into the amount column and the appraisal figures are only stated parenthetically. The case is cited as a more or less typical example of the increased values shown by appraisal reports. Properties costing slightly over two and three-quarter million dollars are valued at seven and one-quarter million dollars by the appraisal company.

Numerous other examples might be cited. A handle mill in northern Wisconsin erected in 1918 and 1919 at a cost of \$250,000 was appraised by a prominent appraisal company in 1923 at \$325,000, "sound value," and was sold the next year (at forced sale) for \$20,000; an industrial plant purchased during bankruptcy proceeding for \$110,000 appears within a year in the balance sheet of the purchasing company at upwards of \$500,000; a small plant appraised by a reputable appraisal company two years ago at several thousand dollars in excess of book value was reappraised a few days ago by an experienced manufacturer in that line together with a capable representative of an equipment supply company at less than fifty per cent of book value. In this last case both appraisals were strictly on a going concern basis, as the company is financially sound and is earning satisfactory profits. Clearly appraisal reports have distinct limitations for accounting purposes.

Some interesting differences of opinion are to be found among financial writers with respect to the writing up the value of assets. Bonneville's "Elements of Business Finance" contains the following:* "When it is found that any asset is actually worth more than the valuation at which it is carried on the books, it is perfectly legitimate to revalue its worth. This, of course, increases the amount of total assets without creating any offsetting liability, and so helps to build up the surplus." A contrary view is expressed

*"Elements of Business Finance," p. 306.

by Professor Dewing:* "But it is not the custom, nor would it be expedient, to mark up the value of tangible property solely on the basis of a fictitious or doubtful rise in valuation. But when property is actually sold at an enhanced price, the difference between this amount and the amount at which it is carried will appear immediately as a realized asset." Many outstanding examples are cited by Professor Dewing of undesirable developments arising out of or at least associated with this upward valuation of assets, including the organization of subsidiary corporations for the purpose of purchasing certain assets at appreciated values.

Professor Lincoln, in "Applied Business Finance," states:†

Some companies have added to their assets in this way in order to make a better showing in connection with new security issues. Yet it rarely happens that an industrial concern is justified in following this practice. Although it cannot be denied that in many cases the actual reproduction value of a thoroughly efficient plant may at the present time be from fifty to one hundred per cent more than it would have been ten years ago, conservative business practice, except in rare instances, is much opposed to handling matters in this way.

McKinsey and Meech's volume, "Controlling the Finances of a Business," contains the following reference:‡

Under ordinary circumstances the revaluation of assets in order to increase their book value is not regarded with favor by accountants or conservative business men. To credit the estimated increase in value to surplus and make a basis of dividends is a very injudicious practice. To credit this amount to a special account usually serves no purpose, being merely a bookkeeping entry, but it is to be preferred to making the credit to surplus. Nevertheless, corporations sometimes make additions to their surplus by this means, so it must be considered as a possible source of book surplus. Several well known corporations revalued their assets in 1921 in order to wipe out deficits resulting from operating losses. This permitted a balance sheet of a better appearance and allowed the corporation legally to resume dividend payments on common stock at an early date.

The concensus of opinion among financial writers is that it would be unwise to distribute any surplus arising through appreciation in the form of dividends, either cash dividends or stock dividends, although there are some surprising statements to be found on this phase of the subject. Accountants generally will

*"Financial Policy of Corporations," Vol. III, p. 45.

†"Applied Business Finance," p. 307.

‡"Controlling the Finances of a Business," p. 532.

agree with Professor Dewing's statement:*

The first principle that should control the declaration of a stock dividend is that the actual net assets—after all reasonable deductions for depreciation and special reserves—shall be appreciably more than the outstanding stock. This means that neither the plant assets, nor the goodwill account, nor any "revaluation" assets should be marked up in order to show an increase of value other than through the actual reinvestment of surplus earnings in the business.

Prosper Reiter, Jr., in his recent book points out that the courts generally accept the point of view of the accountant and the conservative business man in considering surplus arising through the revaluation of assets as not available for dividends.†

Sound financial plans, in the opinion of most writers on finance, do not place much reliance on asset values except in fixing the amount of money that must be raised at the time of promotion, but lay their principal emphasis upon earning capacity, and earning capacity, as has already been pointed out, is principally the resultant of other factors than tangible asset values, either based on original cost or on present prices. Disapproval is expressed of any extensive use of either bonds or preferred stock in enterprises of a speculative character, as, generally speaking, the provision protecting preferred stockholders in case of liquidation is considered of more apparent than real significance. The practical significance of the mortgage security of bonds lies chiefly in the opportunity afforded the bondholders in case of default to take over the company and continue its operation as a going concern in their own interest, an opportunity again more apparent than real. Referring again to Professor Dewing:‡

The ultimate basis of all economic values is the social service evidenced by earning power This confidence in earning capacity as the real basis of security, though only half consciously realized, explains why certain types of bonds, not based primarily on earning power, are not recognized as high grade securities, even though the cost value of the property pledged far exceeds the total issue of bonds.

The best discussions of this problem are the ones which center around the importance of maintaining intact the economic capital of the concern, at least so far as this takes the form of physical assets. The emphasis is well placed, for this constitutes the most

*"Financial Policy of Corporations," Vol. III, p. 102.

†"Profits, Dividends and the Law," p. 243.

‡"Financial Policy of Corporations," Vol. I, p. 43.

important aspect of the problem. The presumption is that we are dealing with a going concern, that the assets which have risen in value are necessary to the concern, and are consequently not available for sale in order to realize the profit inherent in their increased value. If placed on the market in many cases they would not realize the values assigned to them in the appraisal. The traditional accounting hesitancy to give a place in the accounts to this hypothetical profit is well-founded.

If the increased asset values are an indication of a real improvement in net worth, even though not realized through the medium of a definite transaction, there should be increased earnings commensurate with the increased value. The realization of a profit inherent in increased asset values comes through the channel of normal earnings. While it is recognized that prices of commodities and services, which represent the medium through which earnings enter the business, are not immediately dependent upon costs, numerous writers have pointed out the desirability of computing costs on the basis of current values. If such current values have a substantial basis it will be possible to establish the prices of the commodities produced by the business or the services rendered by it at a point where net earnings are present even after the higher costs are taken into account. Professor Paton* has succinctly pointed out that any increased asset values subject to depreciation must eventually be included in the cost of operation.

After the increased value of an asset has been entirely written off through depreciation along with the original cost of the asset, it is evident that the profit is no longer hypothetical but real, at least as expressed in terms of money. It is not available for cash dividend purposes, however, unless the economic capital is to be impaired. This leads logically to the conclusion that to maintain the economic capital intact when asset values have been increased there must be a constant increase in net worth, as expressed in terms of money, equal to such increased asset values, or, more specifically, an increase in net worth equivalent to the portion of the depreciation charge based on increased asset value.

If this portion of the depreciation charge is regularly credited to reserve for "replacement of fixed assets in excess of original cost" the fundamental objective of maintaining the economic capital intact has been accomplished. Increased asset values will appear in

*"Accounting Theory," Chap. XVIII.

the balance sheet as they are realized and this is in strict accordance with conservative accounting practice. Such a reserve has the advantage of keeping the attention of the management and the stockholders centered on the real significance of increases in asset values. If they are to continue the business with the physical capital intact they must provide sufficient net earnings to make possible an increase in the money statement of net worth equal to the difference between original cost and replacement cost.

In fact it may generally be assumed that market prices of commodities or services in those lines in which substantial increases have taken place in current values will more or less automatically reflect such increased value and that therefore the net earnings will be larger. If no provision is made for replacement of the assets at their higher cost and the earnings shown by the books are all paid out in dividends there will be an actual impairment of economic capital.

To show such increased values in the form of reserves set aside out of the larger earnings also accords with all the other commendable objectives of accounting in addition to that of showing the financial condition. From a managerial point of view the accounts should marshal the facts upon which a sound managerial policy can be formulated. Variations in cost can be shown as economic conditions change, since it is assumed that the management has before it full information as to current asset values even though these are not shown on the books. With the accounts providing a consistent and logical record of historical financial facts based upon actual transactions and experience, the accountant, the manager, or the economist may, with the assistance of outside data, make whatever analyses or set up whatever hypotheses his individual imagination or judgment may dictate. In every case, however, he has the advantage of a definite starting point and such would not be true if the accounts were partly constructed on the basis of actual transactions and partly on the basis of hypothetical data. Unchanged figures in the accounts will show clearly trends of earning, effects of particular financial policies, and the like.

Finally, there is much to support the view that the problem produced by increased fixed asset values is not so much one of reflecting an improved financial condition as it is one of the necessity of securing larger revenues and safeguarding these increased revenues within the business.

A TREATMENT OF DISTRIBUTION COSTS

By W. F. WOODBURY, The Wahl Company

The division of the profit and loss statement devoted to distribution costs is receiving much attention of late, and rightly so, as, in many companies, the cost of distribution is seemingly way out of proportion to the manufacturing cost of the product which is being distributed. Furthermore, from the statistics which are being gathered by different bodies it appears that not only is the cost of distribution generally heavy, but that it is tending to make up an even larger proportion of total costs as time goes on.

Distribution costs depend entirely on the nature of the business and the variety of the product. It appears that the time is past for asking the question: Can we produce all the sales department can sell? That has come to be a comparatively easy matter with most industries and in fact the pendulum has long since swung to the other extreme. With the extraordinary development of modern machinery it is going to be an ever-increasing task for the sales department to dispose of all the factory can manufacture. This being the case it is natural that distribution costs should continue to creep higher proportionately. Management is, undoubtedly, realizing that the big problem before it is not only to dispose of what can be manufactured but to dispose of it economically so that in the sale thereof a profit will be maintained.

Under these circumstances, clearly, the accountant's or statistician's responsibility and importance is increased. The accountant must be prepared to give the management more and better information than ever.

Distribution costs are very important to our particular company, as the selling, distribution, and administrative divisions in a company selling a product of the nature of our lines (which are sold mainly through retailers and to these retailers by our traveling salesmen) represent a very large proportion of the total cost. And while we have not gone as far into the distribution of commercial costs as some experts recommend, that is to say, reduced this charge to a standard unit basis, we have done considerable in this direction and are working toward this goal. Further, we believe that the concentrated effort which we have put into the

reduction of this class of cost during the past two years has been one of the real factors in resuscitating the corporation. Incidentally, we have for the past two years been operating under a budgetary control plan.

THE WAHL COMPANY'S PRODUCTS

Our main products are nationally and internationally advertised and are well known all over the world. The item which gave us our reputation is the "Eversharp" pencil. The value of this name is unknown, but it has cost us a number of millions of dollars to popularize it. This item is manufactured in a considerable line of different materials (precious metals, plated, hard rubber, pyralin, bakelite, etc.) and is manufactured in several different sizes ranging all the way from the small, very thin, beautiful little pencil for a lady, to a large, oversize "Jumbo" for a he-man. They are also made in a variety of colors and a variety of designs.

Next to this comes the Wahl pen, which is also manufactured in different styles of materials, as are the pencils, and in a variety of nibs to suit any and every handwriting. Fountain pen desk sets were introduced into the American market last year, and we have a complete line of these in different styles and classes.

Eversharp pencils are well known the world over and these are made by us in numerous sizes, grades, and colors. (In passing I will mention that color has a very considerable bearing on the acceptance of our class of product by the American people.)

During this last year we put on the market the "Ladies' Manicure Compact," which is a complete article of miniature size. This also was made in a variety of different colors, styles, and materials.

To market all these items we have our own rubber plant, our own tubing mills, and our own lead mills, and all our products are manufactured from the raw materials as purchased by us and fabricated.

The units are small, but there are a lot of them, and a great deal of care must be taken in watching our expenses all along the line, especially when it is considered that the distribution costs are so high proportionately.

DISTRIBUTION OF PRODUCT AND CONTROLLING OF SELLING

These products are sold in all countries of the world, but while the foreign business, including Canada and England, is a consider-

able proportion of our sales, a very much larger proportion is sold in the United States. Our sales in this country are distributed in the main through some 30,000 retailers, and an analysis of our business with these dealers shows that we do eighty per cent of the business through thirty per cent of the accounts. For selling purposes the United States is divided into some thirty-five territories, each one of which is traveled by a salesman. These salesmen are in turn managed by eight supervisors.

We have a very elaborate detail check on and control of the accomplishments of our salesmen. The first requisite of control is the sales quota, and in building our quotas we begin with the county as the territorial unit. There are, in the United States, some 3,063 counties and every one of these counties has a potential value for sales purposes which can be determined more or less accurately by the combination of various factors. When the value of the individual county has been determined it is a very simple matter to gauge the value of a particular territory within the county. Of course, these potential values must be checked against experience before the actual quotas can be set.

The setting of the quotas is, of course, only a starting point, as in setting them one is merely manipulating figures. The test comes in the human contact of the salesman and his selling ability combined with his cost of operation.

In the field of distribution costs there are numerous factors to be considered, not the least of which is the fact that an increased volume commonly reduces the average unit cost of selling. A careful follow up of the salesman to see that he is getting the most out of his territory is necessary. Likewise, writing up daily and weekly reports of standings as against quotas should make up a part of the control. From the figures which are obtained from a close study of the salesman's activities must be answered such questions as to whether a particular territory or section of a territory can be more economically operated direct by the company's own salesmen or through jobbers.

FIXING THE DISTRIBUTION COSTS

As a part of our monthly financial statement we have what is known as a "commodity profit and loss" statement, and this is made up in such a manner as to show us the profit which is made from month to month on the different classes of product.

Independent of our general books and our monthly profit and loss statement we compile a zone or territorial profit and loss.

Referring to the current criticisms of the "gross profit" line, I may say that while our statements carry this line I am free to admit that the use which is made of it is more or less limited. In fact, the only reason for making a division at this point is to determine what the result is before the distribution costs are taken into consideration.

With Mr. Castenholz,* I see no reason why industry should consider costs as costs only up to the point of placing the product in the finished stockroom ready for distribution. Why should the manufacturing overhead be spread on a basis of shipments as they are made while on the other hand the distribution costs are considered as expenses for the period in which incurred only? It is certainly just as logical to base these distribution costs on shipments as it is to spread the factory overhead, and decidedly more accurate. I believe the time is coming when financial statements will be made up on this basis.

The commercial cost in our particular case is divided into selling and distribution, advertising, service, and administrative. The selling and distribution section is composed of three factors, namely:

1. The direct selling expense or the salaries and costs to travel of the salesmen, including sales conventions, commissions, sample cases, etc.
2. The expenses of the local sales departments (comprised of the sales manager and his assistants), billing department, credit department, and shipping department.
3. The expenses of the branches.

The advertising charge is divided into numerous sections, the most important of which is magazine or white space advertising. Other sections are catalogs, window displays, special campaigns, house organ, etc. Service expense is what the name implies, the cost of servicing the product after it is in the hands of the dealer and consumer. Administrative expenses are the standard expenses which are considered as such by the large corporations, being the costs of general accounting, treasury department, and the offices of the chief executive.

These expenses are followed up by accounts in comparison with our budgets, by departments and by sections, and are carefully

*¹⁰⁷The Proper Treatment of Distribution Costs," *THE ACCOUNTING REVIEW*, March, 1927, pp. 19-27.

watched through the medium of monthly departmental statements and class and division summaries.

As to the distribution of these expenses I may say that they are handled differently for the commodity statement than for the territory statements. In the case of the former, all expenses with exception of advertising and service are based on commodity sales dollar volume. The advertising is distributed in accordance with the percentage of space and matter which is printed and used for the different commodities; service expenses apply to service sales only.

The distribution of these commercial costs by territories is on an altogether different basis than by commodities. For instance, the sales executive expense is based on quotas; the credit, billing, and shipping costs on the basis of shipments; the branch house expenses on the basis of shipments from the branches; the white space advertising on the basis of Curtis circulation; the dealers' helps and other advertising on quota; the service charges on sales by territories; and the general office accounting and executive office on shipments. These distributions may not be one hundred per cent accurate (nothing is), but they represent an attempt to apply selling and distribution costs scientifically.

In conclusion let me say that a lot of thought needs to be given to the treatment of commercial or distribution costs in industry. Among special problems which require attention may be mentioned the following:

1. Preparatory sales promotion work.
2. The difference in sales effort to obtain one order against another.
3. Unproductive sales effort.
4. Cumulative advertising value.
5. The extent of company's continued liability in dealer's inventory for a price maintained article.
6. Expenses of special development work.
7. Time of planning for the future.

SOME PHASES OF NORTH DAKOTA'S EXPERIMENT IN FLOUR MILL OPERATION

By J. B. TAYLOR, University of North Dakota

There is always a certain amount of interest attached to the excursion of a state into the field of industry. This is not confined to the state itself, but usually manifests itself as well in even remotely located sister commonwealths. Because of the publicity given North Dakota's program of state ownership, it was thought that a paper dealing with some of the problems of its major industry would find enough interest to justify it.

In order to understand clearly the nature of the organization and management of the state mill and elevator, it is necessary to touch briefly on certain acts of the legislature. In the first section of an act passed by the sixteenth legislative assembly of the State of North Dakota and approved February 25, 1919, is found the statement that "for the purpose of encouraging and promoting agriculture, commerce, and industry, the State of North Dakota shall engage in the business of manufacturing and marketing farm products and for that purpose shall establish a system of warehouses, elevators, flour mills, factories, plants, machinery and equipment, owned, controlled, and operated by it under the name of the North Dakota Mill and Elevator Association." In addition, of course, this act provided for the manner of operation of the Association and the powers and duties of the persons charged with its management.

There was established, by a second act passed in this same session of the legislative assembly, the so-called "Industrial Commission," consisting of the governor, the attorney-general, and the commissioner of agriculture and labor. This commission was empowered "to conduct and manage, on behalf of the State of North Dakota, certain utilities, enterprises and business projects, established by law."

It was the Industrial Commission which was charged with the management and given control of the Mill and Elevator Association. Under the powers thus bestowed, the Commission proceeded to enter into the necessary contracts for the erection of the buildings and the purchase of machinery and equipment, having pre-

viously decided to locate the mill and elevator at Grand Forks. The land for this purpose was donated by the citizens of Grand Forks through their commercial club.

The Industrial Commission continued to act for the Mill and Elevator Association until July 31, 1923, when the Board of Managers assumed supervision of the Grand Forks project. The Board of Managers herein referred to was created by an act approved March 6, 1923. This act, in addition, reestablished the North Dakota Mill and Elevator Association and provided that "for the purpose of encouraging and promoting agriculture," the State of North Dakota should "engage in the handling of grain and in the manufacture and sale of flour and its by-products, and for that purpose should operate and conduct the system of state-owned elevators and flour mills now established and heretofore created by law."

The Board of Managers was composed of five members, appointed in compliance with the statute that at least one person should have experience as a farmer on the farm and at least two should have experience in the milling industry and the grain handling business. The powers of the Board were not as broad as those of the Industrial Commission in that by statute the business of the Mill and Elevator Association was limited to the operation of the mill and elevator at Grand Forks. Thus the authority granted to the Association under the 1919 act, whereby the system might be extended and similar plants established in other points within the state, was denied to the reestablished association under the 1923 act. The manner of conducting business and the general power and duties of the Board were similar to those provided under the earlier law for the Commission. The length of service of the Board of Managers was from August 1, 1923, to February 24, 1925.

The management of the Mill and Elevator Association was again changed in 1925. By an act, effective upon approval, and approved on February 24, 1925, the law of 1923 (which law created the Board of Managers) and other conflicting statutes were repealed. The 1925 law, and the one now in force, reestablished the Mill and Elevator Association and named as the manager of the Association the governor of North Dakota. It was the purpose of the Act to make the governor the absolute and sole manager of the affairs of the Association, in so far as it affected the management and

operation of the Grand Forks project, "with all the authority of both the board of directors and the general managing officer of a business corporation."

Briefly stated, the powers of the governor in this capacity are as follows:

1. To make and enforce orders, rules, and regulations for the transaction of business.
2. To employ or appoint, at his sole discretion, persons to assist him in exercising the power vested in him.
3. To fix the compensation of all employees.
4. To dismiss, with or without cause, all employees, managers or agents.
5. To delegate any part or all of such power as he may see fit.

The manner of conducting business and the powers and duties of the Association were similar to those granted under the 1923 law. Included herein, as before, was the provision that the Mill and Elevator Association should not lease, sell, or convey to any persons the Grand Forks mill and elevator.

This brings us to the present status of the mill and elevator—a going institution, purchasing and storing grain, manufacturing and selling flour and its by-products, operated by the Mill and Elevator Association through the governor and his appointed assistants.

Thus far we have sketched briefly the form of organization provided for this enterprise with the changing form of management during the periods of construction and operation. Before reviewing the results of operation to date, a word about the financing of the Association and the construction of the plant is necessary, since both have a direct bearing upon the final outcome.

At the inception of this enterprise, the State of North Dakota had at its disposal practically no funds with which to construct the plant and to use as working capital. The law which created the Mill and Elevator Association in 1919 carried with it an appropriation of but \$200,000. The legislature, to meet the situation, passed a measure, which was approved February 25, 1919, providing for the issuance of bonds in a sum not exceeding \$5,000,000. The security behind the bond issue was a series of mortgages on the plant and equipment of the Grand Forks plant.

Two issues of bonds have been floated during the life of the Mill and Elevator Association. The first was a series of construction bonds, bearing the date of January 1, 1922, and totalling \$3,000,000.

One million six hundred thousand dollars of these bonds bore interest at five and one-half per cent and the remainder carried the rate of six per cent. The second bond issue was of "mill operating" bonds under the date of July 1, 1923, to the amount of \$1,500,000, and bearing interest at five and three-quarters per cent. This latter issue is secured by mortgages on the grain, partly manufactured product, and finished product at the mill.

The funds provided from the sale of the construction bonds were applied to the payment of the cost of construction of the buildings, the purchase of machinery and equipment, sidings, sewers, and the various other features of the plant. The contracts for the buildings were let in 1919 on the basis of a cost plus ten per cent commission to the contractors. This factor, coupled with the abnormally high prices obtaining at the time, increased enormously the cost of the plant. It is very generally believed that the existing plant could be duplicated at the present time with a considerably smaller expenditure of funds.

It was quite apparent after the Association had begun to operate the mill and elevator that there was a lack of working capital. To meet this deficiency the milling bonds spoken of above were issued and the funds applied to the purpose. Thus, we find the Association operating the mill and elevator on January 1, 1923, with a plant erected at a cost of about \$3,000,000 and \$1,500,000 for use as working capital.

The results of operations are extremely interesting in the manner in which they illustrate the effect of the adverse conditions under which the Grand Forks mill and elevator has had to struggle to exist. A scrutiny of the balance sheet on page 139 reveals that the deficit of the Association includes in round numbers an operating loss including depreciation of \$200,000. Figures as such are, of course, valueless unless, as we consider them, we take cognizance of all the factors that contributed to the results obtained. The most direct influences affecting the North Dakota project could best be classified under the following heads:

1. The difficulties incident to the establishment of a new enterprise.
2. The burden of excessive investment in plant.
3. Location.

Every difficulty that is ordinarily encountered by any new enterprise had to be coped with when North Dakota entered the business of manufacturing and distributing flour. The establishment of

the trade name, "Dakota Maid," for the main product was the chief problem which faced the management. It was a task of some magnitude to find a place among the venerable and nationally known established lines for this newcomer from the open spaces. Therefore the Association sought diligently to bring their product under this trade name before the public not only abroad but at home in North Dakota, where they needed and depended upon the support of the taxpayers. Operations during such a period are not likely to result in enormous gains to any organization, due to little knowledge upon the part of the public of the product or the stability of the manufacturing concern. The state mill was no exception and a fair part of the losses to date are attributable to this cause.

A further loss in this organization can be traced to the attempt to establish a business policy, both as to the purchasing of grain and as to the distribution of finished product. It was found expedient at times to go beyond the borders of the state into Canada to purchase grain since a better price could be secured there. Objections were forthcoming as a natural result from the North Dakota farmers, as they felt that the state mill and elevator should buy their grain solely. This feature, which would be totally absent in a private enterprise, complicated the problem of the management in deciding upon a policy to be followed in securing raw material. The problem of distribution had a deeper consequence and has proved to be even more acute than the problem of purchasing. At the outset, it seemed reasonable to believe that the state mill could compete in the eastern markets with the eastern manufacturers, and it cost considerable to disprove this theory under the existing conditions. Therefore the search for an adequate market has had its direct effect on the results to date.

The location of the plant also has left its mark upon the profit and loss statement. From the standpoint of the country as a whole, doubtless, the best location would be in the neighborhood of Buffalo, where every ideal of plant location can be realized. As you move west these advantages diminish, and as far west as North Dakota they are not found in any great abundance. The limitations of the present location are found in the long haul to market, the excessive cost of power as compared to Buffalo, and the absence of cheap transportation. Locally, also, the situation is not of the best. Grand Forks is located in the extreme eastern

part of the state, and with the adverse freight rates obtaining a more central location would have been more effective and more profitable. Freight rates between points within North Dakota seem excessive when compared with rates to outside points. For example, it has been stated that it costs ninety-eight cents per hundred pounds to ship flour to Devils Lake, North Dakota, a distance of about 100 miles, and \$1.01½ per hundred pounds to ship to Minneapolis, a distance of 375 miles. A revision of these rates is being sought at the present time and relief from this burden will enhance the possibilities of profitable operation.

The burden of excessive investment is one of the most acute questions that the management has to face. The cost of construction, due to the type of contract and the peak prices current when the plant was built, is such that the possibilities of profitable operation have been minimized due to the effect of the large depreciation charges. It is the opinion of reputable contractors that the present plant has cost approximately a million dollars more than it would have cost under normal conditions. Therefore it has been urged within the state that North Dakota should recognize that this one million dollars has been lost as a result of an entirely outside agency, should write off its loss, and should consider future results of operation upon the appraised valuation with a consequent smaller depreciation charge. In fairness to the enterprise, this procedure seems expedient.

Not only was the state extravagant in the expenditure of the money used to build the mill and elevator, but likewise in the size of the plant erected. The mill consists of three 1,000-barrel units, a total capacity of 3,000 barrels a day. There is no profitable market for this amount of finished product, and one unit is capable of producing a sufficient quantity to meet the demand. The elevator has storage space for 1,900,000 bushels, of which space for only about 750,000 bushels is required for the mill. This leaves a storage space of 1,150,000 bushels to be disposed of, a large portion of which *must* be sold to make the elevator an income producing unit. The present volume would indicate that a plant built to meet immediate requirements would have been much more practicable than one built in view of an expected future growth. The depreciation charges due to this overcapitalization have consequently been a real burden for the Association to carry.

There is an interesting point in balance sheet structure to be

found in the consolidated balance sheet of the mill and elevator. The summarized figures included in the October 30, 1926, statement would appear about as follows:

NORTH DAKOTA STATE MILL AND ELEVATOR

Balance Sheet as of October 30, 1926

| <i>Assets</i> | <i>Liabilities</i> |
|---------------------------------|-------------------------------------|
| Current assets\$2,075,000 | Current liabilities\$ 450,000 |
| Fixed assets 3,100,000 | Reserves 425,000 |
| Deficit 1,150,000 | Accrued interest on bonds 950,000 |
| | <i>Capital</i> |
| | Construction bonds 3,000,000 |
| | Milling bonds 1,500,000 |
| <hr/> \$6,325,000 | <hr/> \$6,325,000 |

It will be noted that the two series of bonds totaling \$4,500,000 are listed under the caption "capital"; and no capital has ever been provided except through the sale of these bonds. One of the controversial questions in North Dakota at present is whether this is borrowed or invested capital. The second debatable question arises through the establishment on the books of a liability "Accrued Interest, \$950,000." Evidently the deficit includes not only the \$200,000 loss from operation but also the \$950,000 charge for this accrued interest. The state treasurer has paid to the bondholders all interest when due. Therefore this liability as established is not to the bondholders but to the state for the interest so paid.

Vigorous objection has been raised to this procedure of creating a liability to the state for the interest on these bonds. The following arguments have been advanced by those opposed to this practice:

1. The state has assumed liability for these bonds both as to principal and interest and has made provision for the payment of the interest and the redemption of the bonds in the tax levies.
2. The statute authorizing the bond issue states that "from time to time the Industrial Commission shall out of the earnings derived from the operation of the Association, pay to the State Treasurer such moneys as the Commission shall deem available to devote to the purpose of paying such bonds and interest." It is contended, in light of this provision, that only after earnings are made is the Association required to pay to the state any amount for interest or principal and then only in an amount that the Commission shall deem available.

3. This provision places the state in the same relationship to the Mill and Elevator Association that a stockholder bears to a corporation in a private enterprise. Thus the state may expect a return on its investment only after action by the Industrial Commission, taken after earnings are made. This is the exact situation in a corporation where dividends are declared by the board of directors out of profits to such an amount as the board considers judicious.

4. It is not in conformity with good accounting practice to express this liability for interest on the books since it is analogous to establishing a liability for undeclared dividends in a year when a loss has occurred and a deficit exists.

5. It is penalizing the Mill and Elevator Association unduly to consider its capital in the light of borrowed capital. There is no good reason for holding the Association responsible for the lack of funds on the part of its chief investor, the state. A corporation does not inquire into the source of funds used to purchase its stock nor does it assume responsibility for interest paid by stockholders on funds borrowed to purchase that stock. In short, this investment of \$4,500,000 should be considered as the original capital contribution by the state to the Association and not as capital borrowed by the Association through the state.

6. Finally, it is put forth that if the state had had sufficient funds on hand and not been obliged to borrow money for this purpose, this problem would not have arisen.

Those who contend that this interest is a liability of the Association and should be so expressed in the balance sheet submit that:

1. It is a direct liability created by law, and for which the state has the right to expect and does expect to be reimbursed.

2. The loss to the taxpayers of the state is not properly stated unless this interest is included.

3. It is essentially concealing the true facts, both to creditors and taxpayers, to present a balance sheet which does not recognize this liability.

In view of the above discussion it is interesting to note that the certified public accountants employed by the governor in his capacity as manager of the Association, did not include in their last report this interest item as a liability. They did, however, indicate by a footnote on the balance sheet that the state had paid the interest on these bonds and stated the amount.

The manner of financing this project is quite unique. One seldom encounters a similar situation in a private enterprise. We occasionally find instances of under-capitalization but rarely one where there was absolutely no capital invested at the inception of the enterprise. Therefore in attempting to determine the exact

nature of the capital, whether invested or borrowed, it is necessary to look into the intention of the framers of the law. From the wording of the statute, it seems to have been their intention to treat the interest and principal payments by the Association to the state as necessary only when a surplus appears. Anticipating profitable operations, the legislature provided for the disposition of the surplus, giving the right to the Industrial Commission to determine the amount to be paid, if any, thus preventing too great encroachments upon the working capital. The obligation to pay any amount to the state arises only when there is a surplus over all immediate needs—a free and unappropriated surplus. The interest payment requirements are not certain and at all events obtain only in the case of profitable operation.

It would seem, therefore, that it was the intention of the framers of the law that this capital was to be treated as invested capital. All liability for interest and principal payments has been assumed by the state and provision made to that end. This view can only be sustained, however, if it is possible to separate the state as such from the state trading as the Mill and Elevator Association. It appears essential from the accounting standpoint to do this. The losses from interest paid would be borne by the state as such, and the results of operation of the Mill and Elevator Association would not be affected by this item in any manner.

There is no denying that the result to the taxpayers is the same in either case. They are required to pay the taxes necessary to defray the interest cost and to redeem the bonds. It makes a difference, however, in the consideration of the success or failure of this enterprise. It may be wholly possible that the taxpayers would be willing to consider the taxes levied to amortize the principal and interest as but a delayed contribution to the capital of the Association and a penalty for the delay. It finally resolves itself into a question of how to interpret the results of this experiment.

There are also those who consider that a charge for depreciation is erroneous. The provision for depreciation to date is in excess of \$200,000, and by eliminating both interest and depreciation a surplus arising from profits from operations would be shown. There is little merit to this suggestion, however, as it is generally conceded that depreciation computed at conservative rates should furnish a part of the cost of operating any business enterprise. This proposal to eliminate consideration of depreciation would seem

to spring from a lack of knowledge of standard accounting practice.

The Mill and Elevator Association, in an attempt to solve the problems of distribution, is using every endeavor to build up a market for its products in the neighboring states of Minnesota, Wisconsin, Iowa, and South Dakota. It is hoped that the entire output of one unit of the mill may be disposed of in this territory and that a steady demand will be created. At the present time only the surplus production is being disposed of in the eastern territory.

Relief in the matter of railroad rates is also being sought and it is hoped that the effect of the present more or less adverse location may be lessened. The management of the Association feels that there should be no discrimination in favor of its eastern competitors and a determined effort is being made to have the rates adjusted.

Looking toward the solution of the problem in connection with the elevator, North Dakota has created, with the Grand Forks plant as a nucleus, a grain terminal known as the North Dakota Terminal. This terminal has been recognized by the State Railway Commission and the Interstate Commerce Commission and includes such privileges and features as Federal inspection of grain, protein testing, storage and cleaning facilities, milling plants, railway trackage, etc., both publicly and privately owned.

The terminal exchange, through its attorneys, has moved to have dismissed an injunction obtained by the railroads operating in the State against the order of the State Railway Commission establishing joint line rates and transit privileges for the terminal. The advantages of these favorable rates and privileges, as quoted from the attorney's brief, are:

For the miller, it means the opportunity to secure Federal inspection, protein testing, and to obtain the kind and quality of wheat needed for milling purposes to blend with the local wheat of his particular mill. It means the opportunity to clean any wheat desired, or to dry it, or store it, or to mill mix if so desired.

That is the terminal service offered by the North Dakota Terminal and the members of the North Dakota Terminal Exchange can make effective this service if the rate structure would so permit.

For the farmer, it means that he or his local elevator can store his wheat upon the basis of its premium worth. It means the opportunity for him to have and use his dockage within this state. It means the opportunity for him to sell and mix his wheat so as to secure the blend and protein quality necessary or wanted for milling by the mills of this state that can have access to this terminal so far as the rate structure will permit.

The problems of the Mill and Elevator Association have not been solved nor is the immediate solution of them in sight. It is too early to attempt to forecast what the future holds in store for this enterprise and it is entirely without the province of this paper to do so. The mill has been of great benefit to the farmers of the state through the laboratory tests it has made, enabling them to sell their wheat at a premium because of its high protein content. It has aided also in the dissemination of information concerning grain growing and marketing. These factors have increased the returns of the farmers greatly and have in some measure helped to justify the existence of the mill and elevator at Grand Forks.

THE ANTECEDENTS OF DOUBLE-ENTRY

By A. C. LITTLETON, *University of Illinois*

As most readers will at once perceive, it will be unnecessary in this paper to consider the direct parental antecedents of double-entry. That was done three years ago in an accounting classic of matchless spirit by Professor Hatfield. Rather, it is proposed to follow the genealogy of bookkeeping back beyond those parental ancestors whose respectability was so ably proved at the time. The purpose here will be to trace out those blood-lines of pre-parental inheritance which finally converged at a certain time and place, there to confer certain characteristics upon the the offspring. If respectability of sire and dam constitutes "presumptive evidence" of respectability of offspring, as Professor Hatfield phrased it, surely, respectability in still earlier forbears will still further assure the acceptance of our subject in polite circles.

In trying to perceive the forces which produced double-entry, two questions, it seems to me, must be answered in the process. First, what were the antecedent elements out of which double-entry finally evolved? We need an answer to this question, I think, so that we may better appreciate how closely accounting has been, and still is, related to several collateral fields. Second, what surrounding conditions were necessary to give vitality to these antecedent elements? We need an answer to this question in order to perceive that accounting owes more to the evolutionary forces of society than to particular genius, either in our own times or earlier.

The antecedents of double-entry—those factors which in time became so interwoven as to render double-entry inevitable—are all familiar quantities; some of them are very old and some are very obvious, but all of them are, in the writer's opinion, indispensable. They are given below in a rough sort of sequence.

The *art of writing* is an indispensable antecedent, since bookkeeping is before all else a record; *arithmetic* is essential also, since bookkeeping is a sequence of simple computations, even though they are cast into certain forms; *private property*, since bookkeeping is concerned only with recording the facts about property and property rights; *money*, (i. e., a money economy) since bookkeeping is useless except as it reduces all transactions in properties or

property rights to a common denominator; *credit*, (i. e., incompleted transactions) since there would be little impulse to make any record whatever if all transactions were completed and closed on the spot; *commerce*, since a merely local trade would never have created enough pressure (volume of business) to stimulate men to coordinate various ideas into a system; *capital*, since without capital, commerce would be trivial, and credit would be inconceivable.

We can recognize these elements as essential to the formation of double-entry; had any of them failed to appear, the appearance of double-entry would have been problematical. If either property or capital were not present, there would be nothing for records to record. Without money, trade would be only barter; without credit, each transaction would be closed at the time; without commerce, the need for financial records would not extend beyond governmental taxes. If either writing or arithmetic were absent, the "vehicle" of bookkeeping would not exist. All of these items are antecedent elements to bookkeeping; we could not dispense with any of them and expect to see double-entry remain.

But indispensable though they are, even these elements could not produce bookkeeping by merely appearing together historically. All of them were present in some form throughout the era of ancient history, but the ancient civilizations failed to produce double-entry.

Writing, for example, is as old as civilization itself. Babylonian mortgages impressed in cuneiform characters upon clay tablets, and Egyptian tax collections painted in hieroglyphics upon papyrus can still be read after 4,000 years. But there was in none of this writing any sign of double-entry bookkeeping; for bookkeeping is more than a writing, although always written.

Arithmetic as we understand it—the easy and systematic manipulation of number symbols—did not exist in the ancient world, although the Greeks had made great advances in geometry. Numbers could be expressed by the use of letters of the alphabet, it is true, but arithmetical manipulations, even addition and subtraction, were very difficult to perform. The lack of an easy means of computation must have been as strong a deterrent to financial record-making at this time as its later appearance was a favorable factor.

Property is an indispensable antecedent to bookkeeping, of course; for without the right to possess, enjoy, and dispose of articles of property there would be little reason indeed to "keep books." But property rights under the ancient civilizations were

not of the kind to inspire other conditions necessary to bookkeeping. Property acquired by conquest or obtained from slave labor, is likely to be expended in lavish display or in further wars—in any case unproductively. The highest conceivable need for bookkeeping under these conditions would be satisfied with a sort of “stores accounting,” which would merely tell what property was available. The accounting of the Egyptians extended no further than that; and the financial records of the Roman head of a family were little better—hardly more than receipts and disbursements.

Even the addition of the factor, *money*, to the art of writing and to private property could not produce double-entry bookkeeping. These three factors made possible a written record of private properties which could be expressed in a common denominator. But the incentive to convert a possibility into an actuality was lacking.

Credit there was too, such as was extended by the ancient money-changers. But this offered little incentive to systematic record-making. Loans for the most part were based upon pledged valuables as in modern pawn brokerage; money was not loaned commercially but against necessity—for consumption rather than for production. Indeed, lending could hardly be called a credit transaction until far into the Middle Ages. A loan upon pledged property was to the lender practically a completed transaction. If the borrower never reappeared to redeem his property, it was his loss, not the lender's worry. There was little need here for records.

Nor was the *commerce* that existed in the ancient world the kind to stimulate such a thing as bookkeeping. The Phoenicians were great traders along the coast of the eastern Mediterranean 3,500 years ago, and they may have given us the basis of our alphabet of twenty-six letters, but they did not give us double-entry. Barter needed no bookkeeping.

The antecedent of double-entry which we designate commerce is not just trading exchange; it must be an extensive commerce in order to produce the pressure of a great volume of trade. This sort did not exist in the era of ancient history. The demand for trade goods was small because populations were relatively small and largely self-sufficing; because they consisted of many slaves, serfs, and poor artisans with low purchasing power, and but few persons of wealth. Besides this the supply of trade goods was very limited and the means of transportation inadequate. The com-

merce which was required to foster the formulation of double-entry was a large-scale and *profitable* commerce, for a profitable commerce alone creates a fund of capital which can be reemployed productively and thus give rise to additional capital in turn.

Here, in the opinion of the writer, is the principal explanation of why the ancient world did not produce bookkeeping. It did not have the conception of productive business capital; it lived throughout its era in an agricultural stage of development where there was no occasion to consider capital as a factor in production. This stage was to be followed long afterward by an era of handicraft and of commerce, and still later by an industrial era. These later stages were better suited to the development of bookkeeping, but neither of them had been reached when the doors closed upon ancient history.

There was *capital*, in the sense of wealth, in the ancient world, but the mere existence of wealth does not inevitably give rise to the other conditions essential to the formation of double-entry. It is not wealth in marble palaces and secret hoards which creates conditions favorable to the appearance of a coordinate system of financial records, but wealth in the form of merchandise and ships—wealth which is active, turning over, ever changing in the processes of producing more. Wealth in that form creates questions and doubts and hopes, and men, in striving to find answers to these questions, slowly evolve methods of record to serve their needs. In other words, wealth in the ancient world was not possessed of the energy to become “capital” in a sense to make it an antecedent of double-entry.

In fact all of these elements which we here accept as indispensable antecedents of double-entry bookkeeping, were already present in the ancient civilizations in recognizable form. Yet they failed to produce then what the same elements later did produce—bookkeeping. Why later? The answer lies, I think, in the historical characteristics of the next period—in the differences in outlook and background, in the differences in men's aspirations and interests, and in the differences in the quantity of the wants and the quality of the ideas of the times.

Let us look at these same elements in their new setting of medieval conditions between the years 1200 and 1500—more than eight hundred years after the crumbling of the Roman Empire

brought an end to ancient history. They are the same elements, yet different.

Reading and writing, formerly the prized possession of a few scholars, were now more common among the traders and bankers of Venice than anywhere else outside of the monasteries. Scholars had long been able to write, but traders could now, for the first time, write down what trade would need to have written. *Property rights*, which in an earlier day had meant little to a slave population, now were freely enjoyed by freemen. In the prosperous city-republics of Italy, there existed the most stable governments of ten centuries; private ownership of property was widely diffused and amply protected. These oases of stable government proved an advantage in another respect, for they gave *money* a significance as a medium of exchange it had never known before, and thus hastened the day of a money economy.

So, it is evident that even these very ancient institutions of money, property, and the art of writing, took on a new vitality in the new surroundings. But in the other items in the list of antecedents to bookkeeping, even greater changes appear. *Commerce, capital, credit, and arithmetic*, all partake of the spirit of the Renaissance which surrounded them; they seem animated by a new life in comparison with that seen in ancient history. Of these, commerce attracts first attention, because the others are not a little influenced by it.

Because ancient civilizations lived, for the most part, in an agricultural stage of economic development, with large slave or serf classes which had no purchasing power, barter was the usual method of exchange, and traders were hardly more than "peddlers." Compare with this the great and growing trade of Venice and other cities of the medieval period. Venice alone had 300 ships on the Mediterranean and 32,000 traders in the Near East. Northern Italy was populated by a nation of traders rather than by agricultural serfs and landed nobility. Crusaders and camp followers, returning from the luxurious East to their own crude country-side, and no longer satisfied with the old style of living, were largely responsible for the great expansion of trade which followed the Crusades, and the Venetians were strategically located in the natural path of that trade. On the one hand, a hardy, growing population in Europe developing a taste for distant products, and, on the other hand, a source of abundant supply of the products of

eastern climates and handicraft now known and become accessible. The foreign trade which developed out of those conditions was something the ancient world had never seen, and something which had far-reaching consequences.

The transportation of numerous armies of crusaders between 1096 and 1272, as well as supplying them with necessities and equipment, was a profitable business. And when to these sources is added the trade in commodities which the Crusades so largely stimulated, and which for centuries flowed through the cities of Northern Italy, it is obvious that *capital* will accumulate rapidly in the cities most concerned, and having accumulated, will seek employment.

The wealth of the ancient civilizations was stagnant in the form of palaces rather than active in the form of ships. But in the city-republics of Italy, between the years 1200 and 1500, the wealth was urged into productiveness. Trading was the vocation of large and small; the wealthy owned their own ships and ventured their capital in goods to fill them; those in more moderate circumstances went adventuring as active partners upon the capital of silent partners. Others chose the safer road of lending money upon the security of the ships themselves, or of lending to various governments. Here was the beginning of real *credit* transactions.

These loans to the government marked the beginning of investment banking—the participation of many individuals in one loan. As early as 1178 the merchants of Genoa advanced funds to the government upon the security of the public revenues and the profits from military expeditions. This financing later developed into the famous Bank of St. George. The Bank of Venice had a similar origin, when in 1171 the merchants were given transferable book credits for gold advanced to the government. The size of some of the early deals is staggering to contemplate. For example, in 1307 the merchants acting as a group loaned the Republic of Florence seven million gold florins (\$15,000,000), and a little later (1340) loaned nearly \$4,000,000 to King Edward III of England. This stands in graphic contrast with credit in more ancient times, when loans were largely for consumption and usually based upon pledged valuables as security.

With the accumulation of capital seeking employment, it is not surprising that the great merchant houses of the day added a rudimentary sort of commercial banking to their activities. In-

deed, it soon became practically a necessity, for the sums often involved in trade were too large to be risked unnecessarily on unprotected roads. Even before the year 1200, bills of exchange had made their appearance, and in the next century their use spread so rapidly that the bankers became important enough to have a duly organized guild to regulate many of their practices.

By 1230 Florentine and other bankers had representatives scattered over the whole of Europe who, among other activities, collected most of the papal revenues, remitting usually by bills of exchange through branch offices of their banking houses. How extensive these scattered connections had become by the next century, may be judged from the example of the firm of Peruzzi, which had no less than sixteen branch houses at this time, and one hundred and thirty agents looking after its interests. Much of the firm's activity was trading, of course, but along with this it carried on banking operations, for the two were seldom separated as early as this. By 1338 there were eighty houses in Florence alone conducting a banking business, and by the end of that century there were fully one hundred and twenty.

All through this period of 300 years, *arithmetic* had been quietly playing its appointed part along with the other antecedents of bookkeeping. The ancient world had been greatly handicapped by inability to make computations easily; the literal symbols used for numbers by the Greeks, and the even more faulty system used by the Romans, did not lend themselves readily to calculations. But in the Middle Ages Europe began to learn arithmetic from the Arabs and this condition was in the way of being remedied.

There is small doubt that Italian traders knew the essentials of early commercial arithmetic before the material appeared in Europe in manuscripts; their contacts with the Arabs of Northern Africa and in Constantinople would indicate this. And in 1202 Arabic numerals and methods of computation were introduced into Europe in book form by Leonardo of Pisa. This book had chapters on addition, subtraction, prices of goods, barter, partnership, and the like, and would be of interest to merchants because of this type of contents as well as because it made use of the new system of ten numerals, including a zero.

Such a system lent itself naturally to computations and had already been applied by the Arabs to a great number of arithmetical problems of trade. This knowledge the Italians acquired early

in this period, and it seems very probable that it opened the way for systematizing the record-keeping made necessary by bills of exchange, as nothing else could have done. This connection would not be easy to prove to the satisfaction of a critical historian, however, and no attempt is made here to go into the argument.

Arabic numerals were used for a long time by Italian merchants along with the Roman system, for the one did not replace the other. It seemed that the rules of the bankers' guild prescribed Roman numerals for ledger records, and thus forced the older system of enumeration to remain in use after a better had appeared. The idea prevailed for a long time that Roman numerals made fraudulent alterations more difficult. This was an important consideration even as early as the Middle Ages, as is shown by the requirement of the guild in the 13th century that members must keep records and must open them to surprise inspections by guild agents. Illegibility was severely censured, as were, of course, inaccuracies and falsifications (Staley p. 177). Were not these 13th century "inspecting agents" of the bankers' guild the forerunners of auditors?

It is evident from all this that the circumstances surrounding commerce, capital, and credit in the Middle Ages were very different from those which surrounded the same elements in the period of ancient history. And it must become increasingly evident that these surroundings so changed the size and extent of commerce, and the purposes for which capital and credit were employed, that these elements could now become the vitalized antecedents of book-keeping where before they could not. Together with medieval arithmetic, they now lead directly to the development of double-entry.

The elements of double-entry bookkeeping appear early in this same 300-year period, and the formation of the system is complete before 1500. By 1211 evidences are found of cross entries between the accounts of clients in the records of a Florentine banker. Records of the stewards to the local authorities of Genoa of 1278 show no trace of double entry; but the books of Rinerio and Bolda Fini (1297) have accounts with persons as well as things, and the records of the stewards to the local authorities of Genoa of 1340 now appear in quite complete double-entry. The ledgers of Soranzo Bros. (1406-1434) are particularly complete trading records, with nominal accounts closed into Profit and Loss, and thence into

capital in the regular way. Here is tangible evidence of a practical kind that bookkeeping was actually developing now that conditions were right. In another generation (i. e., by 1494) double-entry had been fully explained in a printed book (Pacioli). So well were the fundamentals of double-entry established by the end of the century that they have needed no change since that time.

But the story of antecedents is not yet quite finished. Professor Hatfield spoke very convincingly in that earlier paper concerning double-entry's parentage and immediate associates; and we have sketched here its earlier ancestral antecedents to show that blue-blood from ancient time runs in its veins. It would seem only fitting, therefore, before leaving the subject, to inquire briefly concerning the progeny of double-entry as well as the ancestors, parents, and associates. The embodiment of all this ancestral heritage is now some 500 years old—old enough to be judged by its successors as well as by its forbears.

Let us change the figure of speech and draw a metaphor from the nurseryman's practice among his fruit trees. He grafts the buds taken from one strain of cherry tree on the hardy root stock of another strain, and thus produces a tree which combines the hardy life of the parent root and the engaging characteristics of the engrafted stock.

The hardy root stock you will recognize at once is double-entry bookkeeping. What buds have been grafted onto that root, and what has the combination produced? Here is just a suggestion; there is time for no more.

One of the buds grafted on the parent stock has been the philosophy of economics. From this younger discipline, bookkeeping acquires a body of concepts and a language which has been invaluable in producing a new hybrid of far greater value to business than the parent alone. From this source came our concepts of cost and of income, for example, and the distinction between current and fixed capital. Another engrafted bud has been secured from the science of law in the form of the limited liability, joint stock corporation. From this source comes the distinction between initial capital and reinvested profits, the concept of permanent capital investment and dividends only out of profits. A third bud has been grafted on to the hardy root from the art of business management. From this source come certain practical necessities of the executive, such as the periodicity of financial statements, with all that

implies in the way of valuation, accruals, depreciation, etc., and such practical necessities of management as cost accounting, budgeting, and the like.

Each of these three graftings has changed the fruits of the parent stem and where for nearly 500 years men saw merely bookkeeping—financial records leading at best to little more than a calculation of profits—they now see accounting—a scientific procedure of inestimable value to society through the service it performs in facilitating sound business management.

We have reason, therefore, to be proud of double-entry—though we should at all times carry our pride with humility. We have reason to feel that double-entry lacks nothing in either remote ancestors or in parents and associates. Few indeed are the other institutions which were so soundly established in their beginning that they have continued for 500 years as little altered in their essentials as double-entry. We have reason to be proud too of the results of uniting bookkeeping and other disciplines—in other words of accounting. Accounting has had a large part in the world of affairs recently and it bids fair to continue to give increasing service. But just as the accounting of today is clearly a product of historical evolution, influenced by many men and many forces, so the accounting of tomorrow will be but a continuation of that evolution, influenced still by all of the circumstances which may surround it.

Principal References Used

Staley, "The Gilds of Florence."

Pirenne, "Medieval Cities."

Monroe, "History of Education."

Molmenti, "Venice."

Knight, "Economic History of Europe to the End of the Middle Ages."

Ball, "History of Mathematics."

Brown, "History of Accounting and Accountants."

THE GROWTH OF ACCOUNTING INSTRUCTION SINCE 1900

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The purpose of this paper is to show the growth of instruction in accounting in American universities and colleges from 1900 to the present. The interest in accounting has also grown rapidly in secondary schools, normal schools, and foreign schools in this same period, but the scope of this study is restricted to American universities and colleges.

The year 1900 was selected as a starting point because instruction in accounting prior to that time was not very important. In fact, even during the first few years following 1900 there was not much development in accounting instruction in our universities; and in such work as was given the art and science of bookkeeping were emphasized rather than the fundamental principles of accounting.

In order to determine the extent of this growth a study was made of the courses in accounting as shown by the catalogues of forty-two of our leading universities and colleges. In this study the catalogues were carefully examined for each year from 1900 to 1926, inclusive. In addition, in order to determine definitely the growth in the number of schools giving courses in accounting, the catalogues of seventy-five additional universities and colleges were studied for the year 1900, 101 for 1910, 303 for 1916, and 575 for 1926. In all about 2,200 catalogues were examined.

The results of this study can be conveniently presented in terms of three periods: first, 1900 to 1910; second, 1910 to 1916; and third, 1916 to 1926.

ACCOUNTING INSTRUCTION FROM 1900 TO 1910

In the year 1900 thirteen universities and colleges* gave courses in accounting for which college credit was given. Six other schools maintained commercial departments on the order of the so-called business college. In the latter institutions the courses in accounting, or, more appropriately, bookkeeping, ranged from five weeks to four years in length, and no credit was given towards a degree.

*Dartmouth College, Drake Univ., Harvard Univ., Louisiana State Univ., Univ. of Missouri, New York Univ., Univ. of Pennsylvania, Temple College, Agricultural College of Utah, Univ. of Utah, Univ. of Vermont, West Virginia Univ., Univ. of Wisconsin.

A certificate was usually granted upon satisfactory completion of the work. The entrance requirements were lax in the case of the latter schools, it being possible for an eighth grade graduate to take the "bookkeeping course."

It is interesting to know that seven of the thirteen schools that had courses in accounting were located in the eastern part of the United States, three in the north central, two in the western, and one in the southern.

These schools gave from one to four courses in accounting. In general these were as follows: Principles of Accounting, Advanced Accounting, Bank Accounting, and Auditing.

The elementary course was not called the "Principles of Accounting" in all schools. In fact, the following substitutes were found; "Office Work and Accounting," "Elements of Accounting," "Book-keeping," "Science of Accounting," "Theory of Accounts," "Principles and Methods of Accounting," "Business Forms and Accounts," and "Business Law and Practice."

As a rule the elementary course covered the principles of debit and credit, the theory and purpose of accounts, use of the journal, daybook and ledger, both single- and double-entry, process of posting, taking a trial balance, making a balance sheet, and closing the ledger. Most of the schools stressed the preparation and use of business forms. The latter included drill in making and using notes, checks, drafts, invoices, bills, receipts, accounts, statements, etc. The schools that maintained so-called commercial departments, the courses of which did not lead towards a degree, laid stress upon penmanship, ruling, spacing, arrangement of work, with special reference to neatness, accuracy and rapidity. A few schools included in the elementary course a careful study of the different books of account. One school took up the study of the principles of railroad and industrial accounting as applied to financial and operating administration. In this case were also covered the methods of corporation bookkeeping, forms of financial organization, and management. The course, however, was only for seniors or graduate students.

Where credit for accounting was given towards a bachelor's degree the elementary course was not offered as a general rule before the sophomore year, and in a few cases it could not be taken before the junior year. Two schools (Harvard and Dartmouth) allowed graduate credit for the completion of the elementary work. Most

of the schools required bookkeeping for admission to the elementary course.

The courses were taught largely by the laboratory method supplemented by class discussion. Sets were worked out under the direction of an instructor and ample drills were given in the preparation of forms and the working of exercises. The method of instruction in New York University was an exception to the general rule in that it was "founded upon the use of textbooks and courses of lectures, supplemented by the careful employment of a system of quizzes designed to aid the student's memory."

The course in advanced accounting was offered by five of the thirteen universities. It was described under such titles as "Special Accounting," "Practice in Accounting," "Expert Accounting," and "Advanced Bookkeeping." It covered such phases of accounting as advanced theory, the use of special books of account, controlling accounts, partnership and corporation accounts, and complex financial and partnership adjustments. In some cases it included municipal, federal, receivership, and estate accounting.

It is quite noticeable that the laboratory method of instruction was not used as much in the advanced courses as in the elementary ones. However, there were a few schools that used the laboratory method exclusively in all their accounting courses.

Bank accounting as taught consisted of theoretical work as outlined in a text, and practice as a teller, bookkeeper, etc., in a bank organized in conjunction with the other accounting courses. This subject was not very widely taught and was given primarily by those institutions maintaining so-called commercial or business schools.

The subject of auditing was not offered by many of the schools. Of the thirteen that had courses in accounting, only four (Agri. College of Utah, Dartmouth, New York Univ., and Temple College) gave auditing. It did not always appear under the name "Auditing," however, for some schools combined advanced accounting and auditing and others called it "Expert Accounting and Auditing." The conception of auditing at that time is quite obvious from the following description: "The duties, qualifications and requirements of expert accountants are carefully studied. Books suitable for different kinds of business with the most approved ruling, special columns, etc., are discussed. Much practical work is given in open-

ing and closing sets of books used in various business enterprises.”* One school (Dartmouth) offered auditing under the title “Accounting and Auditing” and from the description of the course it is evident that most of the time was devoted to the principles of accounting. One institution (John B. Stetson) that did not give college credit for its accounting courses, had a collection of books of bankrupt concerns and used them in connection with its course in auditing.

The description of the course in auditing as given by New York University conformed quite closely to our present idea of the subject. According to the description the course included a study of methods of procedure in the examination of the accounts of individuals, partnerships, corporations, and municipalities, the verification of balance sheets and profit and loss statements, and the making of special reports.

In addition to the four courses mentioned in the preceding pages as being given in 1900, the University of Utah offered a course entitled “School Accounts.” It included instruction in double-entry bookkeeping and the forms of ordinary business paper together with special instruction in the keeping of district and county school accounts. It was one semester in length. “Farm Accounting” was also offered by several schools as a short-term course, continuing ordinarily from two to four weeks. It was usually given in the College of Agriculture in connection with the short winter courses or extension work. The principles of debit and credit were taught and applied to farm transactions.

It is quite noticeable during the five years following 1900 that many of our large universities which had not given accounting in 1900 incorporated one or more courses in their curricula. “Corporation Finance and Accounting” was the one new course that was commonly introduced. It also was found under such titles as “Corporation Finance, Accounting and Commercial Law,” “Corporations,” “Corporation Finance and Theory of Accounting,” and “Corporation Finance, Securities, and Accounting.” In fact this was the only accounting course offered by many of our large schools.

The content of this course varied with different institutions. In one school it included a study of the methods of financing employed in large corporations, with their system of organization and accounting. The accounting phase as a rule was left until the last part

*Agricultural College of Utah

of the course and in many cases received little attention. In others it included forms of investment, consolidation, reorganization, nature of balance sheet and profit and loss statement, principles of auditing, theory of depreciation, and accounting systems of special forms of business. The common method of approach to this subject was through the study of reports and financial statements of railway, banking, and industrial corporations. In some schools the course was supplemented by a series of lectures by practical accountants.

In 1902 Professor Sprague of New York University offered a course entitled "Philosophy of Accounts." In this, accountancy was considered from the standpoint of science. Illustrations were freely used but the emphasis was upon the philosophy of the subject as a phase of economic theory. During the course the various arts which depended upon this science were defined and differentiated. The account was defined and analyzed, and accountancy was reviewed. Critical opinions were gathered from different writers as to the purposes of the account, the information furnished, forms of accounts, and the results of accounts. Various theories of debit and credit were studied and used as a basis for argument and explanation.

It is interesting to know that as early as 1902 a departure from the regular method of teaching the elementary course was made by a well known teacher of accounting (Professor Hatfield). In this course accounts were studied and interpreted from the point of view of the business man rather than that of the professional bookkeeper. The published statements of railroads and other corporations were used as a means of interpreting the balance sheet and profit and loss statement.

In this same year (1902) "Executor and Trustee Accounting" was given by New York University. The legal rights and duties of trustees, executors, etc., were studied, together with the proper accounting methods. The same school gave a course in "Investment Accounting" in 1903. It included the study of various types of investment institutions, the accounts required by them, and the use of the principles of mathematics as applied to investments. "Special Problems in Accounting" was the title of another course introduced in 1904. It consisted of lectures on such subjects as bank accounting, auditing, appraisal and depreciation, railway accounting, and the public accountant.

In 1904 the subject of cost accounting was introduced in two schools (Univ. of Pennsylvania and New York Univ.) as a separate course. These courses embraced a study of the nature of cost accounts, advantages and methods of cost keeping, the records used for raw materials and perpetual inventories, labor records, distribution of manufacturing expenses, and designing of cost systems.

The greatest progress in accounting instruction as shown by any one school during the period from 1900 to 1905 was by New York University. Beginning in 1900 with three courses in accounting, the number increased to twelve in 1905, and from five semesters' work to fifteen. From 1905 to 1910 the following new courses were given: "Accounting Systems," "Accountant's Reports," "C. P. A. Problems and Questions," and "Railroad Accounting and Auditing."

Although the subject of accounting systems was included in many of the advanced courses prior to 1905, no special course having this title was given until 1906 (New York Univ.). This course consisted of a study in detail of various systems of accounting and their construction, and the installation of accounts in cities, theaters, trading companies, commission concerns, etc.

"Accountant's Reports" was the title of a special course given by one institution (New York Univ.) in 1907. It was designed to remedy in part the lack of effectiveness in the presentation of results which often obscures the value of an accountant's work. The lectures dealt with the technique of reports, the proper arrangement of facts and figures, and the means of making clear the treatment of an involved situation and of emphasizing important conclusions. A considerable number of specific cases were taken up for discussion and students were required to write several reports.

The introduction of the study of C. P. A. problems in almost every case closely followed the passage of the state C. P. A. laws. In railroad accounting a study was made of the freight and passenger earnings, operating expenses, fixed charges, and in some cases of the auditing procedure involved.

It is of interest to know in what department or branch of the university the early accounting courses were taught. In the institutions that did not have schools or colleges of commerce, accounting was found listed under "Political Economy," "History and Political Science," "Mathematics," "Economics and Law," "Economics and Social Science," and "History, Geography, and Commerce." In most schools accounting was taught in the depart-

ment of economics of the college of liberal arts and sciences. There was one school that taught cost accounting in the college of engineering. Farm accounting was usually taught in the department or college of agriculture.

It is quite obvious from the foregoing facts that instruction in accounting was gradually gaining recognition as an essential subject in our large universities and colleges during this period. No doubt the most important factors causing accounting to take its place beside the old and tried college subjects were: first, the actual need for it because of the industrial and commercial growth of our country; and second, legislative action such as the passage of C. P. A. laws and the establishment of the Interstate Commerce Commission.

ACCOUNTING INSTRUCTION FROM 1910 TO 1916

In 1910 there were fifty-two universities and colleges that gave courses in accounting for which credit was given toward a bachelor's degree. This is an increase of thirty-nine over the number of schools offering accounting in 1900, for which college credit was given. Seventeen institutions granted a bachelor's degree in commerce for which accounting was either required or could be used as an elective. Three schools (Harvard, New York Univ., and Dartmouth) gave a master's degree in commercial science or business administration, and accounting was accepted as fulfilling part of the requirements. Only two institutions (Univ. of Pennsylvania and New York Univ.) permitted accounting to be used as a major toward the bachelor's degree, while only one (New York Univ.) gave a special master's degree in accounting.

Of the fifty-two schools having courses in accounting in 1910, nineteen had only one course, eleven had two courses, five had three and the remaining seventeen had four or more, ranging from eight to nineteen semesters' work. All the fifty-two schools gave at least one course in the elements or principles of accounting, although in three cases these principles were confined to farm transactions, and in two cases—after a short study of the principles—the time was devoted to the study of corporation accounting.

Eight of the schools at this time gave a course in farm accounts. In a few instances, however, it was not listed under that caption, but was a part of the course in farm management. In general it was one semester in length, and consisted primarily of keeping

records for the farm, and making farm reports, monthly statements, and annual summaries. The course was designed for the agricultural student to enable him to determine the financial results of his farm operations. One institution went a little further than the above fundamentals by applying cost accounting to farm operations.

Twenty-nine of the fifty-two schools offering accounting in 1910 gave a course in advanced accounting. It was one semester in length as a rule, although a few extended the course throughout the year. In some instances it consisted only of complicated problems, while in others it included such subjects as cost keeping, a study of systems, auditing, partnership and corporation accounting, municipal, public utility, and insurance accounts, and accounting reports. The title of this course was very broad and, as the content showed, might include almost anything in the field of accounting. Eight of the fifty-two schools offered a course in corporation accounting. This consisted of the study of the corporation as to its organization, advantages, and accounts peculiar to it. Special studies were made of corporate records, and of the reports published by telegraph and telephone companies, and by insurance, manufacturing, and transportation corporations. The latter reports were analyzed from the standpoint of accounting and interpretation.

Thirteen of the schools offered a course in auditing, labeled as such. There were five others that included a study of auditing as a part of advanced accounting or corporation accounting. In the latter cases the word "auditing" appeared in the title, "Advanced Accounting and Auditing." In general the course in auditing embraced a study of the duties, qualifications, and responsibilities of the auditor, the various kinds of audits, the procedure involved, and the preparation of the audit report.

Five schools offered "Railroad Accounting." This included the study and use of the forms in this particular field, the audit of passenger and freight receipts, the determination of operating and plant costs and the gathering of various statistical data that could be used by railroad executives. In one institution lectures were given on the reading of railroad reports and statements, and a study was made of the material promulgated by the Interstate Commerce Commission.

Five of the fifty-two schools gave "Cost Accounting." A few

schools, however, included a study of cost accounting in the advanced accounting course. There was not much change in the content since its first introduction in 1904.

A few schools gave such courses as "Trustee and Executor Accounting," "Bank Accounting," "Accounting Systems," "C. P. A. Problems," "Public Accounting," and "Investment Accounting."

Although several schools had a course entitled "Theory of Accounts," a description of the content revealed that more practice than theory was included therein. New York University gave a theory course under the title, "Philosophy of Accounts." The object of the latter was to work out scientifically a consistent theory of accounts "not dependent upon fiction and regardless of tradition." It was shown that each account was in fact an equation, or could be converted into one, and that it was also a portion or sub-equation of a greater equation known as the balance sheet, having for its sphere an entire business universe. In establishing this equation the old rule that assets equal liabilities was disregarded as in most cases fallacious, and the new and accurate one, assets equal liabilities plus proprietorship, was substituted therefor.

A course in public accounting was given by two institutions (Dartmouth and Oregon Agri. College) in 1910. It was designed to meet the standard of requirements set by the examining boards of the various states which prescribed certain qualifications for the degree of certified public accountant.

In 1911 such courses as "Cost Accounting for Farmers," "Advanced Railroad Accounting," and "Research in Accounting" came into the curricula of the colleges of commerce. The titles of the courses indicate the content. This is true, as a rule, of the new courses introduced in the succeeding periods, so no description will be given of them except in a few unusual cases.

"Public Service Corporation Accounting" was introduced in 1912 by Northwestern University. Oregon Agricultural College also offered a special course for pharmacy students, in the elements of accounting. In 1913 the special accounting courses introduced for the first time were "Insurance Accounting," "Government Accounting," "Institutional Accounting," "Seminar in Accountancy," and "Municipal Accounting." Although some of these courses had been included to some extent in the earlier ones, still this is the first time they had appeared under these titles. In the seminar course students were required to report on various accounting

systems and published reports, and to interpret the accounts of local business establishments. Only one year of accounting was required for admission to the seminar and one year's credit was given for satisfactory completion.

In 1914 accounting courses in "Foreign Exchange," "Auditing Practice," "Analysis of Corporation Reports," "Methods of Teaching Commercial Subjects," and "Cooperative Accounting" were introduced under such titles for the first time. The practical auditing course consisted of practical work for advanced students in auditing the books of charitable institutions. The University of Denver offered a course entitled, "The Accountancy Dispensary." Its purpose was to give the student the experience required by law and at the same time render services to charitable and religious organizations of the City of Denver. Such institutions could obtain the services of student auditors free of charge.

Although corporation reports were being analyzed in many accounting courses at this time there was but one school (Univ. of Wisconsin) that gave a specific course in the "Analysis of Corporation Reports." A practical application of accounting and auditing principles to financial reports of railways, public service corporations, and industrial organizations was made. Holding company reports were studied as well as consolidated balance sheets and income statements.

A step towards specialization was made in the introduction of "Cooperative Accounting and Management" (Oregon Agri. College). This course covered the business management of cooperative societies and a study of bookkeeping and cost accounting especially adapted to different types of cooperative associations in the United States such as creamery and cow-testing associations. It was based on the system published by the "Cooperative Union, Limited," of England, adapted to American conditions.

The following new courses came into existence in 1915: "Methods of Teaching Bookkeeping," "Office Practice and Accounting," "Household and Personal Accounts," elements of accounting especially adapted for law and engineering students, "Mine Accounting," and "Advanced Auditing."

Thus we see in this period from 1910 to 1916 the gradual recognition of the importance of accounting as a subject of college grade and in a few cases as a subject that demands the attention of the graduate student. The growth of specialized courses in accounting

is also quite noticeable. Likewise the growth in the number of schools teaching accounting indicates without question that the subject has proven its worth in the college curriculum.

ACCOUNTING INSTRUCTION FROM 1916 TO 1926

The number of colleges and universities giving courses in accounting which were accepted towards a degree increased from fifty-two in 1910 to 116 in 1916. Nearly twenty of these schools allowed accounting to be used as a major towards the bachelor's degree and some four or five accepted it as a major towards the master's degree. These figures are not exact, due to the lack of sufficient information in some college catalogues, but they are sufficiently accurate for the purpose of this study. In addition there were some forty-five or fifty colleges and universities that conducted business departments. A certificate was usually granted for the completion of a course in such a department which required all the way from six weeks to three years to complete. In some cases a bachelor of commercial science degree was granted after the completion of two or three years' work.

Of the 116 schools having courses in accounting in 1916, thirty-three had only one course, twenty-one had two courses, thirteen had three, six had four, and forty-three had five or more. In general these courses were one semester in length. All of the 116 schools gave at least one course in the elements of accounting. In three schools, however, the elementary course was called "Mine Accounting," and in two others "Farm Accounting." In the latter cases the principles of accounting were first studied and then applied to transactions in line with the type of course. About half of the schools continued the elements or principles of accounting throughout the year. The other half studied the elements for only one semester, which was followed in many cases by another semester's work called "Advanced Accounting."

In 1916 forty-eight schools gave a course in accounting problems, in some cases called "C. P. A. Problems." There was a great deal of difference, however, in the content of these courses. Some schools gave "Advanced Accounting Problems" as the second semester of accounting, and, coming at that time, the problems had to be very elementary. Other schools did not give the course until the junior year. The content of the course was naturally much more advanced in these cases, and consisted in the solving of accounting

problems that were being used in the state C. P. A. examinations.

Auditing was taught by thirty-six of the 116 schools. The subject was touched upon, however, in fourteen other institutions which combined advanced accounting and auditing. The content of the course had not changed much since 1910. It included a study of the duties of auditors, methods of procedure, the detection of fraud, and the writing of reports. One school (Olivet College) justified its course in auditing by saying,

Accounting, in the narrow sense of the term, is constructive. Auditing is analytical. Students preparing for business life need training in both, even though they do not intend to become auditors. This course aims to give training that will enable the student properly to analyze business operations as shown by the books and statements and to present reports that will clearly and properly visualize the business for the period.

In some schools the practice work in auditing was obtained by searching out and correcting errors made by students in the lower classes, especially where sets had been worked out. Some universities, after the study of the principles of auditing, required their students to make an audit of some local business, arrangement having been made by the institution. Such audits included hotels, clubs, small businesses, churches, hospitals, etc. Other schools made a study of specialized audits after the fundamentals had been covered.

A course in accounting systems was given in fifteen of the 116 schools. It was a one-semester course in nine schools. Leading accounting systems were studied, as building and loan associations, insurance, banking, and trust companies, department stores, municipal and public utilities. One school (Boston Univ.) called the course "System Building." This course provided for training in the designing and installing of modern accounting systems for mercantile and manufacturing businesses.

Cost accounting was offered by thirty-five schools in 1916, five of which extended the course throughout the year. It did not always appear under the title "Cost Accounting," as is noted from the following titles found: "Shop Accounting," "Factory Costs," "Shop Management and Cost Accounting," "Industrial Accounting," and "Commercial Cost Accounting." Many colleges and universities touched upon the study of cost accounting in their advanced accounting courses. Some schools studied only the principles of cost accounting, while others, in addition to the fundamentals, required the student to work out a comprehensive costing problem, and in

some cases required him to design his own forms for collecting data.

Six schools offered "Fiduciary Accounting" for one semester. In general the course was open to students who had had one year of accounting. Five colleges and universities gave a course in "Household Accounts," five, in "Municipal Accounting," four, in "Institutional Accounting," four, in "Bank Accounting," ten, in "Theory of Accounts," three, in "Public Utility Accounting," and eighteen, in "Farm Accounting." Of the eighteen schools that offered work in farm accounting, twelve gave the elementary course and six applied cost accounting to farm operations.

Each of the following courses was found in only one or two schools: "Public Accounting," "Forestry Accounts," "Dairy Accounting," "Accounting and Business Policy," "Mine Accounting," "Foreign Exchange Accounting," "Insurance Accounting," "Investment Accounting," "Pharmacy Accounting," "Retail Store Accounting," "Accounting Lectures," "Analysis of Corporation Reports," "Governmental Accounting," "Cooperative Accounting," "Railroad Accounting," "Methods of Teaching Accounting," "History of Accounting," "Research and Seminar in Accounting."

In 1917 the following new courses were added: "Advanced Theories of Accounting," "Mathematics of Accounting," "Lumber Accounting," "Retail Accounting," and "Cost Accounting for Printers." "Income Tax Procedure" was introduced by one school (Univ. of Calif.) in 1918 as a one-semester course. One year of accounting was the prerequisite. In 1919 one institution (Univ. of Cincinnati) offered a course entitled "Accounting and Management." It was designed for prospective industrial executives. A study was made of records and their graphical presentation. A detailed analysis was made of the more important industrial questions and their respective accounting records. A similar course entitled "Managerial Accounting" was offered by the University of Chicago in 1920.

Special courses in the interpretation of accounting records and reports were introduced in 1921. Northwestern University had such a course which had as its basis the outlook of the comptroller and public accountant on the construction, control, and interpretation of the accounts of an enterprise. Accounting systems were devised and students who had completed three semesters of accounting were eligible. Another school (Leland Stanford) included in

its interpretative course a discussion of the balance sheet and of the income and expense statement from the points of view of the commercial creditor (chiefly the banker) and of the bondholders.

In 1922 the following new courses were given: "Administrative Standards, Reports, and Records," "Organization for Executive Control," "Secretarial Accounting," "Brokerage Accounting," "Auditing Technique," "Advanced Problems in Income Tax," "Syndicate Organization and Accounting," "Accounting Correspondence and Reports," "Overhead Costs," and "Judicial Accounting." As has been previously suggested, the titles of these courses indicate the content. It is interesting to note, however, the description of the course entitled "Accounting Correspondence and Reports." It was intended for students who were specializing in accounting but who intended to remain in the private field. Its purpose was to develop in the student the ability to convey to executives in a clear and convincing manner the ideas that arise in connection with his technical work. It was for seniors only and was listed in the English Department.

From 1923 to 1926 the following new courses were offered: "Public Accountants' Letters and Reports," "Retail Audit and Control," "Wall Street Accounting and Auditing," "Inventories and Capital Assets," "Real Estate Accounts," "Accounting Law," "Elevator Accounting," "Metallurgical and Coal Mine Accounting," "Bank Auditing," "Valuation Accounting," "Consolidated Reports," "Financial and Operating Reports."

Although the content of the above courses is suggested by the titles, it is of interest to note that the same university which introduced a course in 1922 entitled "Accounting Correspondence and Reports," offered in the following year "Public Accountants' Letters and Reports." This was designed for students entering the field of public accounting. Consideration was given to the various types of letters arising in the professional field as well as special attention to the use of English in the construction of effective accounting reports. It was also given only to seniors and was offered in the English Department.

There are 335 colleges and universities that are offering courses in accounting this year (1926). Of these 335 institutions at least sixty accept accounting as a major towards the bachelor's degree and thirty allow it as a major for a master's degree. Practically 11 of the 335 schools give a course in the principles of accounting.

In some schools it is called "Constructive Accounting," in others, "Accounting and Statistics," and, again, "Accounting Practice." A tendency towards specialization in the elements of accounting is noticeable from such titles as "Accounting for Engineers," "Accounting for Lawyers," etc. About three-fourths of the schools devote one year to the study of the principles of accounting.

Twenty-five institutions offer "Corporation Accounting" as a separate course. In a majority of cases it is only one semester in length. As a rule it is given by those schools offering elementary accounting for only one semester. Many of the latter institutions, however, call the second semester's work "Advanced Accounting;" and this usually consists of a study of corporation accounting. Twenty schools give "Intermediate Accounting," and this in many cases also consists of corporation accounts. Advanced accounting labeled as such is taught in 143 schools. In most cases it extends throughout the year. About seventy of the 335 schools give only two years of accounting, the second year being called "advanced."

Cost accounting is taught by 147 institutions. It is offered for one semester by ninety-seven schools, and for two semesters by the remaining schools with the exception of one, which offers it for three semesters. In one case it is called "Shop Accounting," in others "industrial" or "factory" accounting. In another school there are two distinct courses in cost accounting, one being titled "Commercial Cost Accounting." It is interesting to note the tendency towards specialization in this field. This is shown by the following: "Printers' Cost Accounting," "Farm Cost Accounting," "Cost Accounting for Engineers," "Problems in Cost Accounting," "Cost Accounting Seminar," and "Petroleum Cost Accounting."

Auditing is now being given by 106 schools and is a one-semester course in eighty-six of them. Several institutions list auditing and advanced accounting problems together. Some combine auditing and public accounting, and others auditing and income tax procedure. The following titles suggest that there is a tendency to specialize in auditing also: "Industrial Auditing," "Retail Auditing," "Bank Auditing," "Wall Street Auditing," and "Income Tax Auditing." A few schools conduct auditing laboratories. One school has an auditing seminar, and another a graduate course in auditing technique.

Income tax accounting is being offered by sixty-six schools. Only ten extend the course throughout the year, the rest offering it for

only one semester. A few schools offer advanced work in income tax problems, graduate credit being given for satisfactory completion. A course in accounting problems is given in seventy-three schools. In twenty-two of these the problems are elementary. In the others standard C. P. A. problems are solved. One institution conducts a seminar in accounting problems. Work in accounting systems is offered in forty-one schools, and is a one-semester course in about two-thirds of them.

Twelve colleges and universities have a course in advanced accounting theory, fourteen in "Bank Accounting," eleven, in "Mathematics of Accounting," and fifteen, in "Municipal" or "Government" accounting. An accounting seminar of some sort is conducted in thirty-two schools. Nineteen institutions offer a course in methods of teaching commercial subjects, including accounting, and twelve give a course entitled "Analysis of Financial Statements." A few schools offer "Institutional Accounting," "Investment Accounting," "Managerial Accounting," "Budgetary Control," "Accounting Reports," and "cooperative," "household," "fiduciary," "secretarial," "railway," and "insurance" accounting. Also are found the titles "Accounting Law," "Specialized Accounting," and "Applied Accounting."

Each of the following courses is given by only one university or college: "Judicial Accounting," "Real Estate Accounts," "Foreign Exchange Accounting," "Brokerage Accounting," "Elevator Accounting," "Syndicate Organization and Accounting," "Bank Auditing," "Accounting Lectures," "Inventory and Valuation," "Department Store Accounting," "Wall Street Auditing," "Consolidated Reports," and "Petroleum Cost Accounting."

From the foregoing information it is quite evident that the greatest progress in accounting instruction has been made in the period from 1916 to 1926.

SUMMARY

In order to see clearly how rapidly and widely accounting instruction has grown in our American colleges and universities since 1900 it is necessary to summarize the facts previously enumerated.

College credit was given for courses in accounting by thirteen schools in 1900. By 1910 there were fifty-two universities and colleges that accepted accounting towards graduation. In 1916 the number increased to 116, and to 335 in 1926. On a percentage basis the increase from 1900 to 1910 was 300 per cent; from 1910 to 1916 about 125 per cent; and from 1916 to 1926 about 189 per cent.

There were no schools in 1900 that accepted accounting as a major towards a bachelor's or master's degree. In 1910 two allowed it to be used as a major for the bachelor's degree and one for a master's degree. By 1916 about twenty accepted it as a major towards a bachelor's degree and some four or five for a master's degree. At the present time at least sixty institutions allow accounting to be used as a major towards the bachelor's degree and thirty for the master's degree.

Beginning in 1900, five was the highest number of semesters' work offered by any one school. In 1910 the number of semesters' work offered increased to nineteen, in 1916 to thirty, and in 1926 to forty-eight.

Aside from the rapid growth in the number of schools offering elementary and advanced accounting, there is a noticeable increase in the number of schools giving cost accounting and auditing. The former was not given as a separate course in 1900, but five schools offered it in 1910, thirty-five in 1916, and 147 are offering it at the present time. The course in auditing increased from four schools in 1900 to thirteen in 1910, thirty-six in 1916, and 106 in 1926.

Another noticeable increase is found in the course in systems, advanced accounting problems, including C. P. A. problems, theory of accounts, both elementary and advanced, methods of teaching accounting, and income tax procedure. In 1910 three schools gave a course in systems, which increased to fifteen in 1916, and to forty-one in 1926. The increase in the number of schools offering advanced accounting problems was very rapid, beginning in 1910 with two, increasing to twenty in 1916, and to seventy-three in 1926. The course in income tax procedure has been introduced since 1916, there now being sixty-six schools that offer it. Likewise accounting theory is being taught more widely than ever.

Although many schools are now offering specialized courses in accounting it is quite obvious that the fundamental ones have been introduced in our colleges and universities much more rapidly. The specialized courses are given as a rule by our larger schools and in nearly every case by those located in large cities.

GRADUATE COURSES IN ACCOUNTING

By G. H. NEWLOVE, *Johns Hopkins University*

In the September (1926) issue of this quarterly, the writer presented statistical data on the graduate courses in economics. It was found that these courses could be classified as follows:

| <i>Groups of Courses</i> | <i>Percentage of Number of Graduate Economic Courses</i> |
|---------------------------------|--|
| Accounting | 17.2 |
| Advertising and Marketing | 10.9 |
| Banking and Finance | 16.4 |
| Commercial Law | 4.9 |
| Business Management | 11.5 |
| Trade and Industry | 11.6 |
| General Economics | 27.5 |
| | <u>100.0</u> |

The purpose of the present paper is to ascertain just what graduate courses in accounting are offered by the universities listed by the collegiate department of the United States Bureau of Education as giving graduate work in applied economics.

In order to simplify the figures, no distinction is made between a term course and a semester course. Likewise, no distinction is made between courses given only to graduates and those given to both graduates and undergraduates; strictly undergraduate courses are ignored. A study of the table on page 168 shows that the graduate courses in accounting can be classified as follows:

| <i>Graduate Accounting Courses</i> | <i>No. of Courses</i> | <i>Pct.</i> |
|------------------------------------|---------------------------|--------------|
| Elementary | 17 | 6.3 |
| Advanced | 43 | 16.0 |
| Cost | 40 | 14.9 |
| Systems | 26½ | 9.8 |
| Auditing | 38½ | 14.3 |
| Income Tax | 22 | 8.2 |
| C. P. A. Preparation | 23 | 8.5 |
| Seminar | 19 | 7.1 |
| Public Utility | 7 | 2.6 |
| Governmental | 8 | 3.0 |
| Managerial | 7 | 2.6 |
| Other courses | 18 | 6.7 |
| | <u>289</u> | <u>100.0</u> |

NUMBER OF SEMESTER OR TERM ACCOUNTING COURSES
OFFERED TO GRADUATE STUDENTS

| Universities | Date of Catalog | Total Courses | Elementary | Advanced | Cost | Systems | Auditing | Income Tax | C. P. A. Prep. | Seminar | Governmental | Managerial | Public Utility | Adv. Theory-Hist. | Anal. of Statemts. | Syndicate | Bank | Estate | Retail | Brokerage | Budget | Col. Curr. in Accy. | Capital Assets |
|-------------------|-----------------|---------------|------------|----------|--------|---------|----------|------------|----------------|---------|--------------|------------|----------------|-------------------|--------------------|-----------|------|--------|--------|-----------|--------|---------------------|----------------|
| American | 1925-26 | 6 | 2 | 2 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Boston | 1926-27 | 14 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Brown | 1925-26 | 6 | 2 | 2 | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| California | 1925-26 | 14 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Chicago | 1925-26 | 8 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Columbia | 1926-27 | 22 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Dartmouth | 1925-26 | 5 | 2 | 1 | 1 | 1/2* | 1/2* | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Harvard | 1926-27 | 9 | 2 | 2 | 2 | 2 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Illinois | 1925-26 | 17 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Indiana | 1925-26 | 4 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Iowa | 1924-25 | 14 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Kansas | 1925-26 | 5 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Michigan | 1925-26 | 10 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Minnesota | 1925-26 | 14 | 3 | 4 | 2 | 1 | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Missouri | 1926-27 | 5 | 3 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Nebraska | 1925-26 | 6 | 2 | 2 | 2 | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| New York | 1925-26 | 10 | 2 | 2 | 1 | 2 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| North Carolina | 1924-25 | 5 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Northwestern | 1926-27 | 18 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Ohio State | 1925-26 | 21 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Oregon | 1926-27 | 7 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Pennsylvania | 1925-26 | 4 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| S. California | 1925-26 | 9 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Syracuse | 1925-26 | 12 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Virginia | 1924-25 | 4 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Wash. (Seattle) | 1925-26 | 11 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Wash. (St. Louis) | 1926-27 | 9 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| TOTALS | 2697 | 17 | 43 | 40 | 26 1/2 | 33 1/2 | 22 | 23 | 19 | 8 | 7 | 7 | 2 | 3 | 1 | 1 | 1 | 4 | 2 | 1 | 1 | 1 | 1 |

*Accounting Systems and Auditing combined, credit divided.

†Figures differ slightly from totals presented in paper on "Graduate Schools of Business" due to use of a few newer catalogs, reclassification of some of the courses (the income tax course especially), and recalculation of term credit of courses in some universities (Washington especially).

It is gratifying to note that the graduate courses in accounting are largely concentrated in the basic subjects. While twenty-one different accounting studies are given, 71.7 per cent of the courses are given in the subjects that a student already familiar with the elementary principles of accounting must pursue in order to become a professional accountant; and although prospective C. P. A. candidates form only a small portion of the total number of accounting students, it still is advisable to offer adequate preparation for the C. P. A. examinations. The relatively weak showing of the subjects not absolutely needed in the professional accounting curriculum is due to the fact that accounting must be studied in logical sequence. Roughly, advanced accounting, cost accounting, systems, auditing, and C. P. A. preparation must be studied in the order named. This system of prerequisites naturally restricts the other accounting courses to the very large accounting schools.

While there is considerable variation in the undergraduate prerequisites to graduate work in accounting, twenty out of the twenty-seven universities require one or more undergraduate courses as a prerequisite to graduate study of accounting. The following indicates the situation in this respect:

*Number of Undergraduate Accounting
Courses Held as Prerequisite to
Graduate Study of Accounting*

| <i>Universities</i> | |
|----------------------|-----|
| American | ... |
| Boston | ... |
| Brown | ... |
| California | 2 |
| Chicago | 6 |
| Columbia | 2 |
| Dartmouth | ... |
| Harvard | ... |
| Illinois | 4 |
| Indiana | 2 |
| Iowa | 2 |
| Kansas | 4 |
| Michigan | 2 |
| Minnesota | 3 |
| Missouri | 2 |
| Nebraska | 4 |
| New York | ... |
| North Carolina | 4 |
| Northwestern | 2 |

| | |
|------------------------------|-------|
| Ohio State | 2 |
| Oregon | 9 |
| Pennsylvania | |
| Southern California | 2 |
| Syracuse | 4 |
| Virginia | 4 |
| Washington (Seattle) | 3 |
| Washington (St. Louis) | 4 |

Naturally, university schools of business that do not require undergraduate elementary accounting as a prerequisite to graduate study of accounting must give graduate courses in elementary accounting. The table on pages 169-170 shows seven universities giving graduate credit for elementary accounting. These courses, however, must not be confused with the typical undergraduate course in elementary accounting. In all but Brown University the elementary course is strictly graduate, and in Brown the course is open only to juniors, seniors, and graduates. Kansas offers a graduate course in theory of accounts without prerequisites; the other graduate courses require two years of undergraduate study in accounting. Except in Brown and American University, the seven universities offering graduate courses in elementary accounting offer separate undergraduate courses in elementary accounting. Indeed, New York University offers undergraduate and graduate courses in elementary accounting, advanced accounting, cost accounting, and auditing. The University of Chicago describes a graduate course entitled "Introduction to the Graduate Study of Accounting" thus:

This is a survey course which presents the essentials of courses 210, 213, and 214 to graduate students. The technique of accounting is minimized and emphasis is placed upon the construction and use of records in managerial control. In this manner the graduate student is able to obtain in two quarters the work presented in the three quarters to the undergraduate student.

A combination of the data from the table of graduate courses on page 168 and the table of strictly undergraduate courses on pages 169-170 shows the normal accounting curriculum to be:

| | |
|--------------------------|-----------------------------|
| <i>Full Year Courses</i> | <i>Offered to</i> |
| Elementary | Sophomores |
| Intermediate | Juniors |
| Cost | Juniors, Seniors, Graduates |
| Auditing | Seniors, Graduates |
| C. P. A. Preparation | Seniors, Graduates |
| Income Tax | Seniors, Graduates |

Systems
Seminar
Fundamentals

Graduates
Graduates
Graduates

The usual undergraduate who majors in accounting would complete the first six courses listed, and would have only two further accounting courses to take as a graduate student, as the course in fundamentals would be offered only to graduate students without previous accounting training. The strictly undergraduate courses in elementary and intermediate accounting are burdened by the fact that the undergraduates must be taught business practices before they can be taught the recording and reporting of business transactions. As graduate students who have majored in general economics are familiar with notes, drafts, foreign exchange, corporate charters, by-laws, stockholders' rights, stock dividends, stock rights, preferred and no-par stock, etc., the graduate course in fundamentals of accounting can cover approximately all the purely accounting principles developed in the first two years of undergraduate work in accounting. Carefully laid out schedules of collateral reading would have to be required of graduate students who pursue the advanced accounting courses after having taken only the course in fundamentals of accounting. This collateral reading would insure a knowledge of the allied subjects, such as commercial law, mathematics of finance, etc., that are ordinarily taken by undergraduate students along with their strictly accounting subjects.

To offer accounting systems and seminar in accounting as strictly graduate courses is especially happy, as both lend themselves to research work, which is the goal of all graduate study.

ACCOUNTING AT "EREHWON"

By J. A. BEXELL, *Oregon State College*

Dean Marshall made a notable contribution to business literature in the *Journal of Political Economy* for June, 1926, entitled "The Collegiate School of Business at Erehwon." (The location of the school will be readily ascertained by reading "Erehwon" backward.) In a somewhat allegorical form Dean Marshall traces the development of collegiate business education in the United States during the last ten years. He is correct in his statement that nowhere is found exactly such courses as he proposes. But the general trend of collegiate commercial education has followed his plan. His conclusions are evolutionary rather than revolutionary. The evolution of business education is stated in the following words:

The organization of material (into curricula) is now being modified, not because it was a failure—it was a distinct success—but because conditions seem to justify taking the next step. For one thing, in the last decade there has been a great increase in the amount of factual economic material available for use in the high schools and there will certainly be a still greater increase in the future. This seems to justify looking forward to a somewhat more mature and generalized presentation of our economic organization at the junior college level. For another thing, the materials of instruction which Erehwon has developed in the various subdivisions of this field can now rather readily be arranged so as to give in a single course a more organic presentation of economic organization than was possible in the half-dozen somewhat specialized courses."

The minor position given to accounting and mathematics in the list of subjects on page 303 is somewhat surprising. Perhaps the author intends to include some of the higher phases of accounting and mathematics under the statistics work suggested for the senior college level.

At Erehwon it is suggested that accounting be limited to the junior college and that more than average time be given to it, but not as much as to English or economics, while it is suggested that in the freshman and sophomore years relatively little time be given to either mathematics or foreign languages. Since the conclusions reached probably represent the composite opinion of a large num-

ber of business educators, the study doubtless shows the trend of opinion in commercial education.

Accounting is to business what mathematics is to engineering. It is the means of measuring the condition, the progress, and the results of a business enterprise. The two fundamental concepts in accounting, (a) the distinction between debit and credit or income and outgo, and (b) the distinction between capital and revenue, seem to be simplicity themselves, yet in their ramifications and applications they become as intricate as the applications of the axioms and equations of mathematics.

Emerson says that in order to have good accounting, three characteristics must be present, namely: accuracy, availability, and adequacy. Due consideration must be given to determining the degree of accuracy required. Absolute accuracy is required only in financial and personal accounting, while in cost accounting various degrees of approximations and estimates are sufficient. Accounting, in order to be of value, must be kept up to date, must be so organized that the information will be available at all times and in a form that is perfectly understandable; and accounts must be neither too simple nor too complicated. They must be adequate for the purpose for which they are intended, namely, to give a survey of conditions and results of the business and to furnish a basis for adequate forecasting and budgeting. This last phase constitutes what Dean Marshall designates "Managerial Accounting" and is, of course, something entirely different from the arts and methods of recording entries in bookkeeping.

The position taken by the Erehwon authorities in respect to mathematics and accounting is well stated in a paragraph on page 304:

From their analysis of executive work, the Erehwon group found that measuring, computing, and recording aids of business administration are an essential part of the equipment of every executive who deals with modern large-scale, impersonal industry. This fact obviously called for preparation in ordinary arithmetic—and something beyond. After making an analysis of the mathematics used in typical business operations, it was decided that this "something beyond" could be covered by the equivalent of two units of high school mathematics if the work were well presented. It was also found by another objective analysis that when two units of high school mathematics are well mastered they give the necessary mathematical background for the required work in accounting and statistics. All this led to the final decision that every student who entered the junior class of the school of business

should have had in high school or college a minimum of two units of mathematics, a general course in statistics, and a survey course in accounting. When the Erehwon curriculum was organized ten years ago this requirement in statistics and accounting was a bit in advance of the times. University authorities had not yet learned to see in these fields material basic to general education. But it seemed to the Erehwon group that their standard should look toward best practices and not merely toward existing mediocre practices.

Interpreting the requirement as referring to *principles* of business mathematics, and of accounting, the place given to these subjects at Erehwon is perhaps satisfactory; but the writer believes that in their applied branches these subjects deserve places in the senior college and beyond.

ACCOUNTING IN THE WHARTON SCHOOL

By GEORGE A. MACFARLAND, *University of Pennsylvania*

The Wharton School of Finance and Commerce is the undergraduate school of business of the University of Pennsylvania. After forty-five years of experience and development, the ideal set for the school by its dean, Dr. Emory R. Johnson, and the faculty, is to offer courses of study which will give to each student: first, a reasonably general education; second, a special training in the principles of business; and, third, opportunity to specialize in the field of business in which he is most interested.

Where does accounting instruction belong in this three-part division of the curriculum? Certainly not in the first division with subjects such as English, history, political science, economics, sociology, and other studies of general educational value. Incidentally, these general studies are not concentrated in the first two years, but are taken concurrently with the technical subjects throughout the four years. Two accounting courses come in the second division of the curriculum, which division includes subjects offering a training in the principles of business in general, a training which must be considered a minimum vocational equipment for any business man. One of these accounting courses is equivalent to two and one-half hours a week throughout the year, and is required in the freshman year for all Wharton School students. The other accounting course in this division of the curriculum is a second-year three hour per week course on the theory and interpretation of accounts, and is an elective subject designed only for students who will not enter the field of accountancy.

In the first-year course required for all the students in the school, the accounting department conceives it to be its duty to acquaint the student with the language and ordinary practices of business, to show the need of proper records in the conduct of any enterprise, to develop the principle of debit and credit under which business events are recorded, the methods of accumulating the data on the ledgers, the presentation of the results of operations, the presentation of financial condition, and the methods of clearing the records at the end of a period. Necessarily there has to be shown the need for modifying and supplementing the book figures before

determining operating results and financial condition by considering such items as prepayments, accruals, and depreciation. At the same time the question of capital and revenue must be considered, and the business background in the mind of the student must be enriched and developed by studies of such business media as checks, notes, drafts, trade acceptances, and bills of lading. Attention must also be given to interest, discount, and percentages. Since the accounting department is the history department of an enterprise, the student must be shown the close cooperation which should exist between departments, that full use may be made of the results shown by the accounting records. The student must be made to realize that an advanced study of accounting necessarily requires equivalent study in other fields such as law, finance, and industry, and that advanced studies in these other fields may require advanced work in accounting.

The second-year elective course, which comes within this same group of general business subjects, is intended primarily to continue the general development of the first-year course. Special attention is given to the analysis of business statements.

All the other accounting courses which are offered in the second, third, and fourth years come within the third division of the curriculum, the field of specialization. These courses are advanced accounting principles, cost accounting, auditing, systems, a field course, practice and procedure, and research.

At the beginning of the second year each student in the school must indicate his choice of a special field of study, and thereafter he pursues a definite group of courses designed to provide further instruction in the general principles of business and special training in his chosen field. There are seventeen groups of studies from which he may select, and one of these groups is accounting. Of the sixteen groups other than accounting, two groups with a major interest in manufacturing require their students to take the second-year course in advanced accounting principles, and one of them requires the course in cost accounting, while the other suggests cost accounting as an elective. Of the remaining fourteen groups, six suggest a second-year accounting course as an elective, while eight groups neither require nor suggest any accounting beyond the first year. It should be noted that these eight groups which do not suggest any accounting beyond the first-year course include groups such as journalism, labor management, public service, and social econ-

omy. Mention should also be made of the fact that each specialized group must allow its students a certain number of free elective credits, so that any student, regardless of his specialized field of study, has the privilege of taking advanced accounting courses, and there are always some who take advantage of this opportunity.

Accounting has been consistently one of the most popular of the specialized groups of studies. It is selected by students who plan to follow accountancy as a profession, and by those who desire to specialize in accounting work outside of the professional field. These students are required to take all the accounting courses, several advanced courses in industry and in law, as well as certain other required general business and general educational subjects. The training of a student in the accounting group may be said to culminate in the senior year with the two most advanced subjects, practice and procedure, and research. In the research course the student is required to study an original problem, to locate the proper sources of bibliography, to gather and analyze facts, and to develop logically definite conclusions with respect to his subject. He must rely on his own initiative and must apply to his subject the accumulated accounting training of the first three years of his course.

The first-year required course and the second-year elective course on the theory and interpretation of accounts are general rather than technical, and aim to give the students a knowledge of accounting such as any business man would need in order to understand business statements.

In all of the other accounting courses a professional school spirit is developed. The courses are conducted to teach and apply principles and to make certain that the students can successfully handle difficult and involved problem material. They must be taught to have a proper understanding of the duties and responsibilities of an accountant, in short, effort is made to train these men to be accurate and persevering with respect to their problems, to reason, and to present clearly the results of their investigations and studies.

ACCOUNTING INSTRUCTION AT IOWA

By S. G. WINTER, University of Iowa

In attempting to contribute to a discussion of the aim and method of accounting instruction it may be well for me to confine my statements to the situation existing in my own school.

I do not believe that all colleges of commerce have identical aims. Perhaps I should say rather that the same aims are accorded different emphasis because of a difference in their relative importance as one moves from one college to another. With different aims or with a difference in the relative importance of the same aims may be found the justification for wide differences in method or procedure.

At the State University of Iowa we have a two-year college of commerce, and, accordingly, the majority of our students are university juniors and seniors. First-year accounting work is offered, however, to pre-commerce sophomores who are technically students in the College of Liberal Arts. This work is entirely under the control of the College of Commerce and is placed in the sophomore year primarily to enable the student to secure some business background before coming in contact with commerce work proper. In other words we believe that a knowledge of accounting principles is a desirable factor in the background which will enable the commerce student to make the most out of his two years in the College of Commerce. This course is prescribed for all commerce students.

Here then we may find a "raison d'être" for our first-year work in accounting. Our experience has convinced us that the student's contact with the principles course in accounting furnishes him with a knowledge of business terms, procedures, and results which will aid him materially in mastering such courses as corporation finance, money and banking, industrial management, etc., etc.

Second-year work, known as "Intermediate Accounting," is purely, and to my mind unfortunately, an elective. The aim of our advanced courses first comes to light in this course. A few students have developed a liking for accounting theory and technique. Many others, while dreading the routine work involved, have developed a respect for the general utility of accounting information to any and all business men. The result is that we have embryo

accountants side by side with embryo bankers, salesmen, industrial engineers, personnel directors, and advertisers. To the first group the course is a stepping stone to more advanced work in their chosen field, to the latter and larger group it is a course which should enable them to understand the results of the accountant's work without necessarily training them to produce such results.

A year's work in cost accounting is offered with intermediate accounting as either a co-requisite or prerequisite. The first semester is devoted to a study of production cost accounting and the second semester to retail or distribution costing. Here again the course must serve a dual purpose. Some students are interested as accountants; others are interested as prospective users of accounting information for purposes of administration and control. The difficulty of serving both groups from the same bowl is less pronounced here than in the intermediate accounting course.

Fourth-year courses are offered in auditing, C. P. A. problems, managerial accounting, system building, accounting theory, governmental accounting, and income tax accounting. With the exception of "Managerial Accounting," these courses are almost entirely restricted to students who plan to enter the accounting profession. Thus the purpose of these courses is solely the training of professional accountants.

The foregoing presents briefly but I believe adequately the situation we are called upon to meet. It may be well to add that throughout the state, whether viewed agriculturally or industrially, the same dual purpose is found when accounting is considered. Primarily the need is ability to interpret and use accounting data and secondarily to produce these data.

What procedures in the teaching of accounting will best serve the ends in view? This is a difficult question and one which does not admit of a definite answer at this point in our experience.

Let me point out the things which we are trying to do and then add a word or two about what we should like to be able to do.

To begin with, our staff is composed almost entirely of men having a minimum of four years of teaching experience. We have not favored the use of graduate students as instructors. To relieve the staff members of irksome routine we provide readers for all papers in first- and second-year work except examinations.

The first semester of our first year is made up of three class hours per week. No supervised laboratory work is introduced.

Each instructor is under the direct supervision of the person in charge of the course. Consequently the work is uniform in the matter of problems assigned and general material covered. On the other hand each instructor is free to digress reasonably if he feels that his sections require more drill in one phase and less in another.

During the second semester about one-half of the time is devoted to the working out of a practice set. Each instructor allows enough class hours to the starting of this work to enable his classes to carry on without supervised laboratory periods. Frequent short quizzes over the set material are given with a view to discouraging procrastination in the completing of the work as assigned. Little or no credit is given for the practice work done but a satisfactory set is necessary to credit in the course. It is safe to assert that this is the treatment usually accorded practice material.

Intermediate accounting is our biggest problem. As has been pointed out, we are attempting to serve two masters, the man who wishes to be an accountant and the man who is interested in accounting as a means to an end. The results have not been wholly satisfactory. Emphasis is placed on an intensive study of partnerships and corporations, the preparation and interpretation of financial statements, and the accounting procedures connected with agencies, consignments, ventures, installment sales, and insolvent concerns.

The content of the other courses is just what you would expect it to be. So far as method is concerned we incline toward the case method whenever possible. Our courses in cost accounting, both production and distribution, are receiving increased emphasis each year. This is true also of the course in managerial accounting.

We believe whole-heartedly in the ends which we are trying to serve. For this reason I should like to see two changes introduced in the very near future. In the first place I was brought up on the idea that two years of accounting work is the minimum which should be required of all commerce students. My experience has strengthened my conviction that this is sound. Second, I believe that the second year should provide for the segregation of the accountants from the users of accounting data. To accomplish this I should like to have two second-year courses or the one course properly sectioned to serve the two ends in view. I feel confident that the content and management of such courses would be a lesser problem than the one we face under the prevailing system.

In large measure our task is one of training the commerce student to appreciate and to use accounting as a tool of business. We are not neglecting the professional side. We urge any student who has both the necessary qualifications and interest to enter the field. We do not feel that it is our business, however, to train junior accountants. We are ambitious enough, if you please, to attempt to train men for careers and not for jobs.

Just recently one of my colleagues, in addressing one of the commerce fraternities, urged those men to welcome an apprenticeship as an essential step toward a goal but not to leave four years of college "looking for a job." That, I believe, expresses our attitude exactly. Our discussions of ethics, of "working from the bottom up," of apprenticeships, of specialization, of a liberal education, are turned to regard these things as factors in the building of a career and not as their own excuse for being. In other words we want the student to appraise these factors properly as to their influence in making him the auditor, comptroller, treasurer, superintendent, manager, or banker which he hopes to be.

"THE ADMINISTRATION OF COLLEGE COURSES IN ACCOUNTING"

By GEORGE E. BENNETT, *Syracuse University*

The article by Professor Chapman in the December, 1926, issue of *THE ACCOUNTING REVIEW* ominously entitled, "The Administration of College Courses in Accounting," seems to call for some comment. It was indeed with surprise and perturbation that the writer attempted to digest the list of administrative problems; he was surprised at the number presented and perturbed by the fact that in nearly fifteen years of contact with school accounting curricula he had not even imagined that the problems were as difficult and farreaching in effect as intimated.

It is realized that since the writer's only accounting "degree" is that which was donated by the insignificant Empire State as the result of a mere "pro forma" examination, it will be a most difficult matter to convince certain readers that what is offered here contains even a truth the size of a mustard seed, to say nothing of settling the propositions raised for all time.

Basically, the questions raised by Professor Chapman may be answered from the point of view of two considerations:

1. Money
2. Results

Money greases the wheels of accounting departments as well as those of any other department. The more lubricant, the less the squeaking on antiquated axles. What can be done as against what is done, too, frequently resolves itself into a matter of dollars. If the writer had all the funds he believed he needed, he would gather together the best C. P. A. talent in the country as a staff, or "bust" in the attempt. Perhaps, however, such a situation would lead to problems more involved and even more troublesome than those suggested—if that be possible.

Results count, nothing else. If results are secured, acceptable to the department head, to the dean, to the general administration, and to the practicing brethren, it would seem that the work accomplished is beyond criticism, regardless of course content or department organization.

At one point (page 80) in the article above referred to, the innuendo seems apparent that mastery of subject matter, as a prerequisite, is overdone, or at least unedibly scorched. Perhaps a good carpenter may be an excellent surgeon, and yet how many reading these lines would call in a good carpenter in a surgical case requiring the skillful use of a saw? The first prerequisite of an accounting teacher beyond the rank of instructor ought to be the possession of a C. P. A. degree or license, earned by passing a most difficult examination, or an American Institute membership earned by the same means.

Turning now to a brief consideration of each of the major groups raised in the article. In the arrangement of the curriculum Professor Chapman places economics as the first or base block of a pyramid, law the second, and accounting the third and last one. For the general commerce student, this order of sequence undoubtedly is correct. Economics should be his first love, law the second, and accounting the last. And if it were not for the fact that accounting as a subject is supposed to be difficult to grasp, the amount of time thereto allotted should be less than that attached to either of the other two. However, the difficulty the average student displays—or attempts not to display—in studying accounting, makes it requisite that the amount of time spent thereon should be at least as much as that devoted to economics.

Likewise it is reasonable to assume that the work should be restricted to basic fundamentals for the general student. And ordinary bookkeeping should not be considered to be the "fundamentals." One must be able to keep a set of simple books before passing to a concentrated study of principles; at least one should be able to write up a set and draw a trial balance. When that point is reached, let us pass on. Too much time is wasted writing up sets. There would seem to be required:

1. One semester of bookkeeping, equivalent to, say, two years of high school work.
2. Two semesters of principles, dealing primarily with
 - a. Operation
 - b. Construction(These are to be interwoven.)

The objective for the principles of operation is the understanding of the balance sheet; that for the principles of construction,

to comprehend that a cashbook is not a voucher record in ruling or in functions. This work need not be unduly elaborate, and the content should be the same for the person who expects to "suffer" in an accounting office as against the one who anticipates securing the vice-presidency of a bank or of a business house six months after graduation. By all means, let each one learn his accounting alphabet and primer before passing to a study of the audit of a brokerage house.

Specialized courses had better be elective, unless the department expects to be confronted by one of two alternatives:

1. Pass a large number who ought not to pass, giving them the department O. K., and get in bad with the normal curve.
2. Flunk a large number, and get in bad with the administration.

For the student who wishes to specialize, it is necessary to pull away somewhat from the "lunch-counter" schedule which has been criticized so frankly by President Frank of the University of Wisconsin. Specialized courses in accounting, prescribed courses in advanced economics, mathematics, and law should be the main diet. Then, for dessert, let our prodigies fill up with anything which does not conflict with the prescribed portion of the schedule—political science, history, languages, etc., so that the cultural point of view will not be neglected.

The specialized courses needed are advanced theory, auditing, cost accounting, systems, review problems, and income tax. And as many more should be recommended as can be sandwiched in without interfering unduly with the mid-week dance, and the week-end frolic, to say nothing of fraternity chapter meetings and other incidental matters necessary for a rounded education.

The second major group of problems concerns "major instructional policies." Give the instructor a piece of chalk, an assignment, and let him demonstrate the subject-matter principles. Why hire a man to lecture when more thought has been given to the text chapter than to the lecture? A repetition of what the text presents may be done better by utilizing a phonograph; and it will be cheaper, even if an orthophonic instrument be purchased.

Accounting is learned through the point of a pencil, and by visual demonstration. The student who recites best on theory probably cannot solve the simplest problem; the most loquacious

teacher probably cannot demonstrate the application of that which he is discussing. Technique is as vital as Saturday night ablutions; it should be emphasized throughout all courses. Let routine work fall naturally into the grooves available when specific principles or topics come up for development.

In his relation to the students, the teacher should be emphatically made to realize he is not a Joan of Arc or some other leader called to guide the rabble out of darkness into light. Above all, play fair, give each man a square deal even if he is a bootlegger's son; pass along plenty of encouragement but only constructive criticism. One of the best possibilities any school ever had, as an accounting major student, left the department when accused of dishonesty, a charge which was entirely unfounded and unproved.

Individual needs always must be subordinated to group needs. If fundamentals are emphasized at all times, the individual student will come out all right, assuming he was present when brains were distributed, and most major students undoubtedly were. Disbelievers and infidels (or is the writer the infidel) should note the success of such schools as Walton and Pace and Pace, where standardized courses are emphasized. And in this connection, also, it may be interesting, though painful, to read in the Yearbook of the American Association of Public Accountants (1915), the report of a committee which at that time investigated schools of accounting.

In teaching sections of the same course, expediency demands standardization of time schedules, of material schedules, and of quiz schedules. Further, the department head should prepare standardized answers and solutions, and all finals, the content of the latter to be known to no one but himself until the final is given. The section teachers should be held strictly to the line, should be required to follow out the schedules as prepared. Let them draw upon their experience for illustration (if they have had any), but tread heavily upon unauthorized variations from the instructions of the department head.

In advanced courses, however, eliminate close supervision. Require results and then forget the detail. This assumes competency upon the part of the teacher of such a course. It is even advisable that the head have nothing to do with the preparation of the quizzes and finals of the advanced courses; although, of course, the department head must pass upon the selection of texts, and perhaps

assist in the rough features of the course outline. Supervision of pedagogical methods to the extent of class visits by the department head is a deterrent under all situations. In seven years' time, the writer has never visited a class taught by a member of the staff; but before any course has been given, he has taught it first to secure an idea of results desired. It is to be remembered that from the viewpoint of the administration, however, whatever happens, the department head is held responsible. Hence, the department head must stand ready to accept such responsibility without excuse. Certain results are to be secured; get them!

Initiative and individual thought should be encouraged by advising outside contacts professionally. These will provide illustrations, a business-like attitude toward the students, and the ability to stand on one's own feet. When the next in rank has developed, let us pass along supervisory duties to him, so that we may secure the time to smoke a few pipes-full and plan for improvements with the resources available. Be open to suggestions from the staff, but be wary of falling for them until the facts have been secured. The department head should reach his own decision regardless of staff conflict therewith.

Let the younger instructors teach only the elementary courses, and require them to mark their own papers. Have only experienced men teach the advanced work. If the advantage of this be doubted, just assign a young instructor an evening class composed of business men, say, in auditing or systems, and see how long he can hold them. I have seen a teacher with a professor's rank fail to hold a class even in first-year accounting in the evening session, because his practical experience was a minus quantity. Out of nearly thirty students who registered for the work, only three remained at the end of the year. And if he had but heard the comments made about him on the outside, his mirror would have stood unused for seven years.

The staff should be hired upon the basis of ability to do the work in mind, and promotions should be made upon the same basis, regardless of academic training. The best instructors the writer has ever worked with have been those who, when secured, had no degree academically received. This remark must not be interpreted as slamming the degree, but let us refrain from placing it upon a pedestal and worshipping it as a little tin god.

Department records are practically worthless, provided the

dean's office has a complete set to which reference may be made. If this is not so, then the only set of records worth anything is that which duplicates the one of the registrar's office. Daily class books should be kept carefully with all necessary grades therein. These should be filed in the department at the end of each semester for reference purposes. They belong to the department. As few records as possible should be used since the department head will have to keep them in order to have them in proper form. It would be too much to expect the staff to assist, because the members are already overworked with the teaching load. Office hours are necessary, and it should be known where each member of the staff may be found from nine a. m. to five p. m., at least, each day, exclusive of Sunday.

Professor Chapman's fourth major division may be answered briefly by the Johnsonian comment: "Forget it." If the staff has outside contacts—and they should have in order to augment their stupendous incomes so as to be able to retire by the age of fifty—plenty of material will be available. It seems a waste of time to gather material by student aid, except perhaps in connection with particular theses.

Members of the staff should be promoted only upon the basis of success in teaching. This cannot follow except through business contacts, and study for the C. P. A. degree. No advanced class has a grain of confidence in a teacher lacking professional recognition and experience, regardless of his pedagogy. Just so long as staff members follow their schedules of work, the use of the remaining time should be their own. Schedules should be arranged so as to permit substantial periods of time away from the college each week.

It seems to be poor policy to send students out to study business concerns—except to secure material for their senior or graduate theses—because it is taking undue advantage of the business which consents to permit such a practice. An accounting department is supposed to instruct, not to engage in business as a department. Therefore, when the invitation is received to investigate the cost of banquet service for the dining room of some dormitory, on the plea that such work will give the students experience, slip out from under the sword. Even though the students may do the best they possibly can, the odium of the work is on the department and some department member—usually the head—must take the

time to iron out most of the solution of the problem, and probably receive nothing therefor except criticism, regardless of results.

A few personal ideas have been advanced in this paper, perhaps rather sharply, in order to secure attention, yet with no malice aforethought. Let us first attempt to reach a high degree of proficiency as accountants, in every modern sense of the term, and then later let us iron out our methods of teaching, each for himself. There never will be uniformity. Professor Gee's method of presenting the controlling account, for example (see same issue of *THE ACCOUNTING REVIEW*), will be excellent and most beneficial for many; for others, it will be impossible to utilize.

This diagnosis has been made upon the assumption that we all desire to be true to the teaching profession, and will do our utmost to be steadfast to the tenets of the guild.

REVIEWS

Accounting—Its Principles and Problems, by HENRY RAND HATFIELD. D. Appleton and Company, New York, 1927. xviii, 548 pp.

I have just finished reading Professor Hatfield's new book. It is not often that a writer who has the same delicacy of touch, humor, and keen knowledge of accounts as Professor Hatfield possesses permits so long a period as eighteen years to elapse between a first and second edition. A rather careful reading of the book has created in me a passion to be honest, and I must confess that if I had not been asked to review the book I probably would not have read it for a long time, if at all. If I had neglected to read it I would have missed a real treat. In addition to the pleasure of reading live comments on dry subjects, I have learned something new and my views regarding some old-fashioned theories are strengthened.

Professor Hatfield, in referring to the field of accounting, states in his preface that during the last eighteen years "more serious study has been given to its scientific aspects than in any other period of similar length, perhaps more than in preceding centuries since Pacioli." I am afraid that some of us who are very busy and who used to read with avidity all of the new books on accounting read fewer books now than we did some years ago, because we are quite unable to keep up with the number of creditable works which are being issued. Professor Hatfield also says, "the enactment of the Federal income tax law has, more than any other single event, emphasized the necessity of keeping accounts that will exhibit with approximate accuracy the annual income." But no mention is made of the very serious departures from good accounting practice which appear in the Federal law and the regulations. All accountants have more or less to do with Federal income tax problems and it is most confusing to try to harmonize good accounting practice with technical income tax procedure. I am not criticizing in principle the departures in the law and the regulations since it must be recognized that it will never be feasible to impose a tax on book net income. I merely mention the confusion because it has certainly made the writing of a book on accounting far more difficult than was the case in 1909 when Professor Hatfield's first edition was published.

Perhaps the outstanding feature of the new edition is the attention given to other writers on accounting subjects, and to court and other authoritative decisions. In addition to extended comments a satisfactory bibliography appears at the end of almost every chapter.

Professor Hatfield's method of presentation is easy to follow and grasp. His comments and criticisms on the writings of others are good tempered and in most cases convincing. I am glad to find that Chapter I deals with the balance sheet as a whole, as my own experience in teaching and in practice has convinced me that the discussion of the balance sheet comes first

either in the instruction of a novice or in technical discussions with practitioners. I shall not have time to review the various chapters individually, but I would like to list the chapter headings in order that the full scope of the work may be seen:

- I. The Balance Sheet
- II. Assets and Their Valuation
- III. The Valuation of Particular Assets
- IV. Intangible Assets
- V. Depreciation: General Considerations
- VI. Depreciation: Methods of Calculation
- VII. Capital Stock, I
- VIII. Capital Stock, II
- IX. Liabilities
- X. The Problem of Profits
- XI. Dividends and Capital Losses
- XII. Profits Available for Dividends
- XIII. Surplus and Reserves
- XIV. Surplus: Its Appropriation, Investment, and Distribution
- XV. Sinking Funds
- XVI. Trading, Manufacturing, and Income Accounts
- XVII. Problems of the Income Account
- XVIII. Cost Accounts
- XIX. Partnership Accounts: Organization
- XX. Partnership Accounts: Liquidation
- XXI. The Statement of Affairs and Deficiency Account
- XXII. Consolidated Balance Sheet
- XXIII. Interpretation of the Balance Sheet

In addition to the foregoing there is an appendix of sixty-five pages containing questions and problems, arranged in groups to correspond with the relative chapters of the text. The questions are well framed. As to the answers, Professor Hatfield says: "Answers to the questions imply an application of the principles set forth in the text, rather than a repetition of the words of the text."

Many of the criticisms in the book are directed at the misleading and inaccurate terminology in wide use at the present time. There is little uniformity about published statements and while I personally deprecate any general standardization of form, I heartily agree with Professor Hatfield that there should be more standardization than now applies. His suggestion that what is usually called "reserve for depreciation" should be changed to "allowance for depreciation" is a very good one. I hope it will be generally adopted. I also hope that there will be more rapid improvement in the designation of assets and liabilities in many published balance sheets. It seems rather ridiculous that the only agreement among accountants is that the two sides of a balance sheet should balance, whereas there are listed among assets items which by no stretch of the imagination could be called assets and there are items listed among liabilities which under no possible construction of the word could be called liabilities.

Professor Hatfield also calls attention to the inaccurate use of the word "reserves" in connection with liabilities, the exact amount of which is known or in regard to which an estimate is made.

Professor Hatfield has a keen grasp of the present inconsistency in balance sheets in which some accounts are meticulously adjusted to odd dollars and cents as to cost, other items are included at value, and still others at some figure in between cost and value, the net result of the whole being unsatisfactory.

I hope that Professor Hatfield's criticisms of the American Institute's report on terminology will result in an early revision. The Committee never intended that in its first attempts anything very satisfactory could be achieved, and is itself keen about frequent correction and revision. If the work had been frequently revised it is not likely that Professor Hatfield would have been able to refer to the Institute's definition of "working assets" as "crudely materialistic and meaningless."

Having finished the book I am somewhat in doubt regarding Professor Hatfield's idea of an ideal balance sheet. He very properly refers to past costs as merely historic and often wholly out of line with present-day values. On the other hand apparently he is not prepared to accept the idea that a balance sheet should show present values since in his comment he says that such a balance sheet "strangely halts and stumbles toward its goal." This criticism is quite justified when specifically applied to concrete cases. I think that in this case, as well as in some others, Professor Hatfield does not make sufficient allowance for the practical difficulties of public accountants who must deal with lawyers, bankers, and business executives who have opinions of their own regarding the interpretation of accounts and who, to the astonishment of accountants, sometimes are right.

The rules for distinguishing between capital and income are discussed in relation to court decisions and other authoritative data and will repay reading.

Professor Hatfield discusses at some length the necessity for basing values on the "going concern" theory. Perhaps we are not ready for any departure from this basis, but I think someone should be courageous enough to distinguish between the values of a concern which is going down and the values of a concern which is going up. When one considers that about ninety-nine per cent of the value of a balance sheet lies in its future working out it is altogether wrong to ignore the trend. This is well illustrated in the rule for valuing inventories at "cost or market whichever is lower." In all cases of fluctuating markets the true financial position of a concern is quite different on the day the balance sheet is published than it was on the closing day and thus the fiction of the basis becomes apparent since the "true" financial position as set forth in the balance sheet is a most unreliable guide.

It is obvious that Professor Hatfield does not like to show average costs. He says that a second purchase at a lower price than the first does not reduce the cost of the first, and that the only excuse for this is ease of administration. I am not sure that this is a sound comment. When one buys at different prices different quantities of precisely the same thing it would seem to be more accurate to divide the total quantity purchased by the total cost price and use this as the new cost of the unit than to assume later on

that some had been bought at a high price and some at a low price and thus leave to chance or manipulation the showing of a profit or loss which might be wholly misleading. I am afraid that some of the unsound and illogical Treasury interpretations have been given too much weight by Professor Hatfield in this and other places.

I am sorry that space will not permit of detailed comment on Professor Hatfield's differentiation between "use" and "value" as these terms relate to depreciation. It is obvious that the straight line method of depreciation is highly inaccurate but no one has yet worked out any more satisfactory method. I do not refer at this point to recognized methods of dealing with depreciation which can be accurately measured, such as the unit method, but I refer to depreciation of such large items as buildings and equipment and machinery of indefinite life. Even though Professor Hatfield has not invented a new rule his keen analysis of the deficiencies of the present rule will be very helpful to those who have an open mind on the subject of accounting for depreciation.

Professor Hatfield, discussing unissued capital stock, says that many accountants prefer to bring the amount of the unissued stock into the books and accounts. I do not recall ever seeing such entries in books of account and if I ever did see any it made no impression on me. The difference between unissued stock and non-authorized stock in reality is almost no difference at all. Professor Hatfield says that it may be of some importance if new funds are needed, etc., but he does not mention that most corporations which need new funds do not have authorized stock issues and yet they find no difficulty whatever in securing statutory approval. This reduces the difference between unissued and non-authorized stock to a legal gesture which is hardly important enough to justify book entries. In other words, the mere right to sell stock which is authorized is not an asset of importance since the "right" is so easily procured that it lacks everything of the elements of an actual asset. The *ability* to sell new stock is a real asset which belongs to a vast number of corporations with no unissued stock, whereas there are a great many corporations with unissued stock which could not possibly sell the stock if they tried.

In dealing with treasury stock Professor Hatfield quotes Sir Arthur Lowes Dickinson, who says that showing treasury stock as an asset "is erroneous and misleading." This may be true, but in examining a great many balance sheets certified to by leading firms of accountants I have frequently noticed the item set up as an asset and I doubt very much whether anyone has been misled.

Professor Hatfield fails to see the inherent vice in the return to stockholders as cash dividends of premiums paid on capital stock. There may be court decisions which operate to keep the offending directors out of jail, but that does not lessen their moral turpitude. The lawyers are too versatile in their interpretation of accounts and they have been bringing pressure in the recent past in other directions such as the distinction between "surplus," "earned surplus," and "paid in surplus." The lawyers say that accountants should not be allowed to decide whether surplus is or is not available

for dividends. We will have some weird accounting if the lawyers are permitted to take charge of our terminology. I am afraid that Professor Hatfield is influenced by the lawyers when he discusses the difference between "contributed capital" and "capital contributed to surplus." The whole point of issue is one of morals rather than law, since dishonest or unscrupulous directors are the only ones who pay dividends out of premiums received on capital stock. I am afraid that if accountants do not take a firm stand regarding the whole subject of surplus, particularly as related to no-par stock, the dishonest corporations will take advantage of the situation and stockholders will receive dividends, believing they are out of profits, whereas the dividends are out of either contributed capital or capital contributed to surplus, in either of which cases the stockholders will surely be deceived.

The only chapter in the book with which I can find fault is that dealing with the consolidated balance sheet. All of us have a great deal to learn on this subject but I was confused rather than enlightened by some of the discussions. Departing from his usual rule of citing authority in detail, Professor Hatfield, on page 452, sets up a consolidated balance sheet which he says is advocated "by accountants of high repute." To my mind the balance sheet is obviously wrong, and I doubt whether there is much authority for the form. I have had much of actual practice with consolidated balance sheets and I still favor the existing rules, some of which Professor Hatfield criticizes. For instance, I think that the surplus of a subsidiary company at its acquisition should be deducted from the goodwill of a holding company. I also think accountants are justified in setting up on the asset side the par value of stocks issued for property, and I do not believe that Professor Hatfield can sustain his position that "the fact of over-valuation can be adequately represented by crediting an allowance for over-valuation."

I read with some interest Professor Hatfield's comments on the interpretation of the balance sheet. I am inclined to think that too much value is being placed on interpretation of past results. Many of our outstanding successful manufacturers and traders know little about accounts. Is it not because they are vastly more concerned with the future than with the past? What real advantage would derive from an intensive study of the results of past periods when to their certain knowledge conditions are changing and they do have before them the costs and expenses of the present month and trustworthy estimates of the costs and expenses of future months? I do not wish to underestimate the value of past records, since no business can get along without them, but I think their value may be overemphasized. Present values may be misleading but past values are more misleading.

On the whole, Professor Hatfield has produced a fine book and I feel deeply grateful that I was given the opportunity of reading and reviewing it. I commend the book without hesitation to everyone interested in accounting.

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Accounting for Surplus, by PAUL W. PINKERTON. Ronald Press Company, New York, 1924. v, 120 pp.

Accountants and other business men should know more about surplus, and its various complexities. To attempt to indicate the relative importance of the various accounts appearing upon balance sheets is doubtless futile. Any such attempt, however, if carried through intelligently, would of necessity place "surplus" among the most important. There is no other account on the balance sheet which can disclose so much of the history of the organization as can the surplus account if it be properly analyzed and expressed. It can be made the log book of the corporate journey. Proper expression of its essential elements may disclose much regarding the character of the corporate management as to conservatism and general policy.

Much has been written and much has been discussed regarding the proper valuation of various assets. Frequently the balance sheet itself does not disclose which of these several methods have been employed, but the surplus account may be made to reflect them, as in the case of a recorded appreciation of fixed assets. A balance sheet may disclose the present position of a corporation, but aside from the surplus account it seldom shows how this position was attained. A splendid proprietorship showing may have resulted from a fictitious boosting of asset value, from contributions by proprietors, or from accumulated earnings. The surplus account should be so displayed as to disclose these facts to the intelligent reader of the statement.

Until recent years very little attention was paid by bankers and credit men to the story that could be told by surplus. Today these intelligent readers of financial statements are demanding more and more information with regard not only to the amount of surplus but to its origin and to its availability. Therefore, proper presentation of this item involves an analysis as to how it came about, and again as to the present intentions of the board of directors with regard to its use, so that the amounts that may have been appropriated for various corporate uses are displayed distinct from the amount unappropriated and available for distribution to stockholders.

"Accounting for Surplus" is the most complete and accurate treatise on this subject that this reviewer has seen in one binding. The author has taken the most pertinent facts to be found in various other books on accountancy relating to this subject and has combined them with his own opinions and clear expressions on the subject. The whole is arranged logically and characterized by a thorough knowledge of sound economic principles underlying the creation of surplus. It is a book worthy of the attention of any accountant. He will find therein a thoughtful discussion of any phase of the subject in which he may be interested. Students reading and mastering the one hundred and sixteen pages of this Ronograph will have a sound basis for thought that should be of great aid to them in the study of any phase of accountancy, for the majority of accounting operations and processes automatically lead to the surplus account in some way or another as surely as all roads lead to Rome.

One inclined to be critical can point out unfortunate errors in the journal

entry figures on page seventeen and again on page nineteen. These, however, are minor mechanical errors, and do not affect the accuracy of the underlying principles. Principles are so much more important than procedures! There are a few minor points that might be questioned, but after listing such of them as this reviewer noticed he felt that they were scarcely worth mentioning in view of the general value of the book itself and none of them involve any false doctrine or anything that would lead a reader into accounting or economic error.

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Crockett, Couchman & Crawford

Consolidated Balance Sheets, by GEORGE H. NEWLOVE. Ronald Press Company, New York, 1926. v, 309 pp.

"This volume," says the author in his preface, "attempts to be a working manual on consolidated balance sheet technique. Accordingly, forty-one rules, supported by very brief discussions and 136 illustrations or cases, are given for use in preparing consolidated statements."

The above quotation indicates with great exactness the character of the work. It is distinctly a guide-book to practice, rather than a presentation of principles. The "how" of procedure is given attention by the author to the almost complete exclusion of the "why."

It is probable, however, that Dr. Newlove assumes a thorough knowledge of accounting principles on the part of the users of his book, and therefore does not think it necessary to go into a detailed discussion of the theory underlying his solutions of the various problems presented. His brief discussions of the more difficult points involved are generally clear and convincing. Some are particularly good, as for example, those bearing on preferred stock, pages 144 and 148, in which the author, while not offering new theory, gives an excellent statement of the generally accepted theory relating to the subject, as supported by legal decisions.

The publishers are probably correct in stating that the book constitutes the "most exhaustive treatment of consolidated statements available." Holding companies, the sale of stock rights, no-par stock, mixed son and grandson relationships, and mutual stockholdings are only a few of the many cases presented, with all possible variations, in the one hundred thirty-six illustrations contained in the book.

An interesting feature is the solution of each problem by both the "cost value method" and the "actual value method." The final results are, of course, shown to coincide in each case. This dual treatment should result in a much better understanding of the principles involved in the consolidated balance sheet, not only on the part of the student and the casual user of the book, but in many cases also on the part of the instructor in accounting. Perhaps even an occasional author of an accounting text who has devoted a chapter or two to consolidated balance sheets with rather indifferent success would find in this feature of the book considerable food for thought and an occasion for revising his views on the subject.

An occasional lapse in the author's use of English is noted, e. g., in line

eleven, page 129, and line three, page 141. Perhaps, however, the errors are typographical.

The book is one deserving to be in the library of every accountant, public or private, and of every instructor in accounting. It is adapted to class room instruction, provided that the instructor is prepared to supplement the discussion of the principles involved, and to supply for his students a series of problems similar to those in the text, but without solutions.

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University of Illinois

Motor Bus Accounting Practice, by ORVILLE AUGUSTUS MAY. Ronald Press Company, New York, 1926. xii, 200 pp.

With the motor carrier or bus transportation industry increasing steadily in importance, both as regards number of vehicles in service and size of operating companies, the subject of improved accounting practices is of ever increasing interest to economists, investors, and business men in general.

The author of the book under review is well qualified to discuss the subject. He has for years been the chief accounting officer for a large New England transportation company, engaged in the operation of electric trolleys and motor busses.

To Mr. May's mind, accounting for bus transportation should be separate and self-contained, although, as stated in the preface, "the system of accounting outlined is designed for electric railway companies operating busses, for joint railway and motor bus companies, or for entirely independent or private automobile or motor bus operating company." The practice discussed includes not only the ledger accounts that should be used but also the methods and forms by which the ledger entries are derived. The forms themselves are valuable features of the book, since they are taken from actual practice and cover every important phase of operation.

Nearly half the contents, or eighty of the 200 pages, are given over to an appendix. Here is reproduced the classification of accounts for motor carriers earning more than \$100,000 annually, as adopted October, 1925, by the American Railway Accountants Association.

Earlier chapters set forth the importance of collecting operating cost information, give advice on the installation and operation of simple and more complex accounting systems, outline the secondary accounting records to be kept in the departments responsible for operation, and analyze methods of keeping costs in garage and shop.

Methods of purchasing and issuing supplies are taken up. One whole chapter is devoted to "handling tires on contract basis." This scheme, which really amounts to routing the tires, becomes somewhat complicated when the operating company has many branches or divisions, so the author shows practicable methods for recording tire life under such conditions, and the compilation of cost data for each individual unit or on a bus-mile basis.

"The question of depreciation is one that has been settled by many persons in their own minds, but never to the satisfaction of the majority," according to Mr. May. Straight-line methods with periods of perhaps four or five years,

are mentioned, as are other schemes of accumulating reserves for worn-out equipment. One of the best, according to the author, is the mileage basis. The main advantage is that no heavy charge is made during the time the bus is in the shop for repair.

The author discusses the preparation of statistical information and financial statements. Daily records of miles operated, weekly reports of fuel and oil consumed, monthly reports showing cost by routes and by individual busses, analysis of revenue for the individual vehicle, and by hours and days in operation, are all emphasized as valuable.

The chapter on financial statements is somewhat elementary, and a distinct effort is made throughout the book to help those not well versed in accounting for transportation agencies. An income statement and a balance sheet for use by either large or small operating companies are illustrated. The methods outlined for the large company are those practiced by a transportation organization operating both busses and trolley cars. A fair portion of the book is devoted to a discussion of various aspects of this joint operation.

A large number of valuable forms are illustrated in the text. These cover records for transportation, maintenance, and accidents, bus mileages, costs of operation, general and overhead expenses, storeroom requisition, tire experience, classification of payrolls, and various types of inspection reports.

To date there is no general standardization of accounting systems for motor carriers. For this, neglect and ignorance are in great part responsible. Such books as Mr. May's, which discuss good practice, are bound to aid in overcoming this lack of standardization. If its ideas are used and its philosophy heeded, the way is paved for a much better understanding of the economics of motor bus transportation.

CARL W. STOCKS

Editor, Bus Transportation

Accounting for the Petroleum Industry, by DAVID F. MORLAND and RAYMOND W. MCKEE. McGraw-Hill Book Company, New York, 1925. viii, 304 pp.

Bituminous Coal Mine Accounting, by W. B. REED. McGraw-Hill Book Company, New York, 1922. ix, 221 pp.

The first book discusses the production, transportation and storage, refining and marketing functions in relation to the accounting system. Also it covers generally the questions of discovery values, depletion of oil and gas properties, and capital gains and losses, in relation to the Federal tax laws.

The second book discusses a system of accounting and cost-keeping recommended by the Cost Accounting Committee of the National Coal Association, presumably applicable throughout the bituminous coal mining industry. It discusses, also, a number of questions akin to those mentioned just above in relation to the Federal tax laws. The forms illustrated in each book have been taken from practice.

Each publication is the most comprehensive thus far attempted for the industry in question and, undoubtedly, each will prove of immense practical value in certain relationships. The practicing accountant who is attempting

to serve companies in one or the other of these industries should find these volumes somewhat enlightening. The same undoubtedly is true when each is viewed from the standpoint of the interested layman. But as texts to be used in an accounting course, the same recommendation cannot be made unqualifiedly.

Each book attempts to cover a wide subject and, in so doing, the discussions and explanations seem to be such that, although readable and interesting, they cannot be said to be complete. Each book contains descriptive text matter, but numerous problems of the larger companies are not touched upon adequately, and the charts of accounts have not been well organized for the purpose of discussion of functional organization.

The book on the petroleum industry devotes some space to a classification of accounts, whereas the volume on the bituminous coal industry apparently allots no space to even a bird's-eye view discussion thereof. From the second volume mentioned, a "bookkeeper of considerable superiority" may be able to visualize the account scheme from the introductory statements displayed, but he will be considerably handicapped by the blurred printing on the forms submitted. These opening forms (they are not charts of accounts) seem to reflect a rather poor example of the printers' art. It is doubtful if any student will ever attempt willingly to study the charts offered near the front of the book. It seems doubtful, also, if his knowledge of theoretical accounting will be sufficient for him to visualize the underlying accounting plan submitted.

The writer of this review is exceedingly partial to a comprehensively developed chart of accounts in an accounting book upon a particular industry. Such a code need not be explained in detail inasmuch as those who would have use therefor, it may be assumed, are familiar at least with the usual accounts. Some books go altogether too far in their detailed explanation of each and every account in the suggested code. These books must assume a reader's lack of knowledge; yet such an apparent attitude is contradicted by a failure to include sufficient text matter to enable the reader to visualize the general scheme of process flow. Other books present a fair and accurate description of the procedure which will permit the reader to visualize the general scheme of process flow and tie-up but they fail to present in any one place a scheme of accounts which will permit one to trace the record tie-up readily.

The coal book seems much more subject to criticism in this respect than the oil book. A liberal rating of this coal book would classify it under the second suggested grouping above. On the other hand, the oil book reflects both group ideas and represents a much better attempt at development.

The first forty-three pages in the book on coal seem unnecessary, except perhaps for their reference to the incentive which prompted this branch of the coal industry to consider cost determination. The text matter proper really begins near the bottom of page forty-three, where the statement is made that the "form (of report) recommended by the National Coal Association Cost Accounting Committee will be made the basis of the treatment of costs in the articles in this book."

It is recognized that many accounting principles are, as yet, far from being standardized. Hence, one person's view, when grounded in practice, is apt to be as satisfactory and usable as that of some one else also tempered in the school of "hard knocks." In the two books in question, numerous matters are the subject of controversy.

The chapter devoted to depletion in the petroleum book does not seem to be particularly oriented to the Treasury Department regulations. One example of this concerns the amount of depletion deductible where the discovery of oil is made by the taxpayer. The same general subject is handled more satisfactorily in the book on bituminous coal mining. In the latter case, the treatment of depletion of mineral seems to follow closely the Treasury Department suggestions.

Each book considers a number of cost problems. The oil book follows what is believed to be better practice. The coal book, for example, on page 139, leads one to believe that cost should include selling and general expenses. Also, on pages 177-179, one reads that "interest expense should in no way enter into the cost of production, but that on the balance sheet and in the preparation of profit and loss statements it should appear merely as a deduction from income." The oil book passes over, with but brief mention, the subject of spreading refinery costs over products.

A foreword in the petroleum book, written by J. Hugh Jackson, then Professor of Accounting in the Harvard Graduate School of Business Administration, leads one to believe that books such as these have a definite place in all technical college and university accounting courses where the accounting problems of specific industries are studied. It is submitted that Professor Jackson is just a bit too enthusiastic in placing such general emphasis upon writings of this character. In numerous instances, other industries would be more adaptable for study than these two.

No particular criticism of merit can be offered of the idea for schools located geographically near industries of the types described. Many graduates of schools thus located enter employment related to these particular industries. In such instances, these books are valuable, even with their shortcomings, when coupled with competent instruction. It seems wholly in error, however, to adopt a text where the public interest therein, as reflected by student opinion, is casual only.

The students in the colleges and universities in and around New York City might well devote their time in a systems course to the study of industries nearer home—stock brokerage, cotton converting, ocean transportation accounting, etc.

GEORGE E. BENNETT

Syracuse University

The Manual of Accounts and Budgetary Control for the Rubber Industry,
by THE ACCOUNTING COMMITTEE OF THE RUBBER ASSOCIATION OF AMERICA,
Inc. The Ronald Press Company, New York, 1926. 257 pp.

The writer approached the task of reviewing this book with considerable trepidation; he realized at the beginning that a number of readers were

going to be somewhat disappointed with the findings. Having worked at various times on the accounts of a rubber company and numbering among his close friends many who have been in the "rubber" game a number of years, it is natural that a fair realization of the problems affecting a "rubber" accountant should have its effect in making the reviewer rather sympathetic toward a book of this type. Hence, the opportunity afforded for polishing up the little old hammer has caused no particular thrill.

Then again, a glance at the title page informs one that this volume was written by an "accounting committee." Such fact makes it futile for any reviewer to search the files for information about the author. This being so, one cannot be guilty of nursing an antipathy which permits the utterance of scathing generalities; some one member of the "committee," at least, may bask in the warmth of some one's Who's Who, in which event disaster surely must follow should the present-day attitude be adopted of criticizing for criticism's sake. No way out of the dilemma appeared other than to read the book carefully page by page, and to reflect upon what was thereon displayed.

The preface is informative in pointing out that the book is divided into five parts rather than being developed in accord with the musty chapter idea. Such a beginning was encouraging, since it foreshadowed subsequent departures from precedent. This is as it should be, since committee action stands behind the result. But a careful reading of context has left the impression that such a departure must have been more of an accident than a premeditation. These five parts are: (1) Classification of Accounts—General Ledger; (2) Detailed Explanation of General Ledger Balance Sheet Accounts; (3) Detailed Explanation of General Ledger Operating Accounts; (4) Compilation and Distribution of Commercial Expenses; (5) Budgetary Control.

The accounts are coded by a decimal system which provides for nine major groups designated by numbers from one to nine. It would seem, however, that the coding should have commenced with the operating accounts rather than with the balance sheet accounts. It is believed that in operating a set of books holding a voluminous collection of accounts, the former group is of considerable more importance than the latter and, hence, is worthy of the favored position in an elaborate code. Nevertheless, the development as printed is orthodox, only a relatively few accountants varying therefrom. The asset chart begins with the current assets and concludes with the intangibles. Again, even though unorthodox, it would seem desirable to have the group for prepaid and deferred items precede, rather than follow, that comprising properties and plant; the former usually is more current in character than fixed.

When the "contra" reserve accounts are scrutinized in relation to their affiliated assets, the question of arrangement in the classification arises. It seems illogical to show, for example, the accounts receivable of each subclass all grouped together, one account immediately under the other, and then below to set out the various reserves similarly grouped. It is submitted, for example, that account No. 31.2, Buildings, should be followed immediate-

ly by its reserve for depreciation, account No. 31.02. Again, while on the subject of this type of reserve, it may not be amiss to suggest that the term "reserve" in such connection is being replaced rapidly by the term "allowance." This is a step in the right direction toward a standard non-confusing nomenclature, and should be encouraged rather than ignored; this ignoring of what seems to be present tendency is to be regretted.

On the whole, whatever criticism may be leveled at the classification of accounts is apt to be more theoretical than practical. Practically, for example, it makes no difference whether a reserve for depreciation immediately follows its related asset or is included at some other point just as long as the instructions for operation and treatment are not in serious error. The general scheme shows the earmarks of careful thought and a knowledge of practical accounting which hardly leaves a fruitful field for the vagaries of a mere reviewer.

The general scheme laid down, perhaps with a little shrinkage here and there, seems adaptable as a general ledger plan in many industries not concerned with fabricating rubber products. It would not be a difficult matter to revamp certain of the account titles to fit a different situation. In fact, numerous activities would undoubtedly profit materially if their executives in charge of accounting were required to secure a copy of this book and read it carefully in the light of their own experiences.

One must not, however, interpret literally the word "read" as above used. The book is entirely devoid of theoretical gyrations, since, with the exception of Part V, it really contains nothing more than the recommendations for doing thus and so. The chart of accounts, with explanatory matter, comprising four parts of the book, may be studied with profit by anyone who presumes to know something of manufacturing rubber products. The writer of this review welcomes the book into the literature of accounting. Nevertheless, it is submitted that such a book will not be accepted as a text for general reading or study in a course on accounting systems. It contains no description, which a student might comprehend, of the processes used in fabricating a product made largely of rubber. For example, no one could secure therefrom any notion of what "compounding" means, or what might be the steps in the manufacture of a "balloon" tire; such knowledge seems to be a prerequisite to the study of the book.

Part V, on the budgetary control, is recommended to anyone desirous of ascertaining just how this may be accomplished. A definite plan of schedule, etc., is provided which, to say the least, seems better than any other it has been the privilege of the reviewer to scrutinize. Even though this part consumes but thirty-six pages, it is undoubtedly worth the price of the book to have such information available upon the shelves of one's library.

GEORGE E. BENNETT

Syracuse University

Applied Budgeting, by HENRY BRIERE and ARTHUR LAZARUS. A. W. Shaw Company, Chicago, 1926. xi, 248 pp.

The process of budgeting it two-fold. It involves first of all selling to an

organization the will to budget. And it involves, secondly, the technique of building and operating a type of budget system that will work successfully in a particular organization.

The authors of "Applied Budgeting" deal almost exclusively with the latter phase. It is their contention that, while much has been written on specific elements of budgeting technique, there is one distinct gap in the literature. This gap is in the presentation in concise form of definite budgeting procedures from which an executive who has the will to budget may find a technique suitable for his own concern.

Briere and Lazarus set out to bridge this gap by outlining budgeting procedures for major lines of industry and for particular type concerns within each industry. Thus there is available chapter and verse from which almost any kind of concern may draw sufficient analogy to afford a starting place at least for its own budgeting procedure.

Specifically the lines of industry chosen total eleven, namely; oil, railroad, bank, newspaper and magazine, contracting and construction, metal-working, department store, canning, hotel, ice cream, and garment. Companies using a budget in the different industries are cited, and the experiences of certain companies have been told briefly.

Going on, the different phases of budgetary procedure most readily applicable to each industry are summarized. Revenues, expenses, capital expenditures, maintenance of way and of equipment, control of materials, and forecasting cash requirements are among the various phases of budgeting technique discussed.

The authors also emphasize that the value and practicability of any one phase of budgeting procedure vary not only from industry to industry but from individual companies within the same industry. For example, many railroad companies are successfully applying the budget at the present time to capital expenditures, maintenance of way and equipment, control of materials and forecasting cash requirements, while other railroads have found it quite difficult even to budget total revenues and expenses.

The authors hoped that the book would have a three-fold interest:

1. To executives in the specific or allied industries dealt with.
2. To practicing accountants and engineers working in the specific and allied industries.
3. As a source book to students of management in colleges and elsewhere.

That this book will be of outstanding value to the business executive is not quite clear. When the executives of a given concern decide to adopt the budgetary plan, their two main problems are: (1) to sell the idea of the budget to the minor executives of the company so that all responsible parties will be pulling in harmony to make a success of the plan, and (2) to obtain a staff with the statistical and accounting knowledge and technique necessary to install the system. Any further factors which may be outlined in a book such as the exact laying out of the steps which should be followed, the proper forms to be used, the items to be shown on each form, etc., seem to be only inconsequential features in comparison with the two

main factors. Each concern, outside of the railroad industry, has accounts according to its own unique patterns and so the exact numbers and types of forms vary widely and makes generalization practically useless.

The value of this book to the accountant or industrial engineer may be a little harder to evaluate. The reader finds it hard to discover anything specific to aid either of these groups of professional men, however, which has not been presented previously, in the work of McKinsey and others. The general theory of budgeting has been handled more completely in prior works and the forms and other mechanical aids have been shown in previous articles in all the profusion necessary for either the accountant or engineer.

The student in college or school of business administration will find in this treatise a source book which supplies an ample number of forms to supplement and explain the general theory read in other books and advanced by the lecturer in the classroom.

What the authors attempted to do in this book, they have done well. They have presented in detail, and with a wealth of forms, the data business executives may study as suggestive samples in starting budget plans in their own organizations; they have provided an excellent supplementary source book for the student and a handbook for the accountant and engineer.

In brief, they have put up familiar merchandise in a new assortment, and in an original and handy packaging. This is useful, but within limits. If the members of the management properly support a budget plan and a trained staff is available to supply the proper coordination and to show the statistical results, the actual series of steps followed and the forms used are relatively of minor consequence. The book touches the major problems of budgeting only through the cumulative force of concrete examples. It is just what its authors have named it, a discussion of *applied* budgeting.

JOHN S. KEIR

Dennison Manufacturing Company

Municipal Finance, by A. E. BUCK. Macmillan Company, New York, 1926. xli, 562 pp.

Here is a milestone in the field of municipal administration—a book which presents a most important subject in all its various phases. It covers the entire field of municipal finance starting with the organization of financing administration, through budgets, budgetary and auditing control, general accounting and reporting, cost accounting, graphic statistics, employment and pensions, purchasing, treasury management, assessments, debt administration, and ending with a chapter on financing municipally owned utilities.

Obviously each of these subjects is not treated exhaustively and herein lies one of the many merits of the work, for it will furnish the reader a view of the entire subject in such a manner as to form a composite picture of the entire field of municipal finance. Should an exhaustive treatment of any particular phase of the subject be desired one has but to turn to a well selected bibliography which accompanies each chapter.

There will not be entire agreement on what should be included and what

excluded in such a treatise. Many will question, for instance, the inclusion of such a subject as employment and pensions, yet the author seems to justify the selection. The treatment of accounting will doubtless offer some difficulties to those who have not had a sufficient background for the subject. But here the author apparently anticipated the danger in attempting to present such an involved subject in a short space and has cut down the use of technical accounting terms to a minimum and placed the emphasis upon auditing control—the phase of most use to the administrator. The book has been written mainly for the city administrator and those interested in the practical side of municipal finance, yet classroom students will find it not only interesting but of much value.

It should be noted that many of the subjects treated are by other staff members of the National Institute of Public Administration and the New York Bureau of Municipal Research and therefore the book has an added value by representing the experiences of several men rather than one. The work is largely based upon the broad experience of the members of the staff who, for many years, have been conducting surveys of governments in over one hundred cities throughout United States and Canada.

No administrator having to do with municipal finance will overlook this opportunity to equip himself for the important task, and no student of municipal government will gain a clearer picture of this important subject than is afforded by this publication.

CLARENCE E. RIDLEY

Syracuse University

The American Accountant, a monthly magazine, published by Homer S. Pace.

Many of those interested in accounting have long felt that insufficient expression was being given in books and magazines to the undertakings and the problems of the commercial and industrial accountant as distinguished from those of the accountant engaged in professional practice. Most accounting literature, and particularly the periodicals in the field, have been prepared primarily by and for those with either an academic or a professional attitude toward the subject. Their contributions to the science of accountancy have been notable ones, but in them stress has been laid on many points with which the accountant in business is not particularly concerned, while on the other hand many of the most vital and pressing problems of the accountant engaged in executive and operating work have received scant attention.

Because of this fact, a warm welcome would seem to be assured for *THE AMERICAN ACCOUNTANT*, a new monthly magazine sponsored by Homer S. Pace, long known as a leader in accounting study, education, and practice. The new magazine is designed for all those doing accounting work of any sort, and it aims to discuss accounting problems of all types, not merely those incident to professional practice. In the words of Mr. Pace, "a 'greater' practice is assumed—a practice that includes the work of the

executive accountant in private employment (no matter whether he is a controller, auditor, treasurer, cost accountant, office manager, or credit man), as well as the work of the public accountant."

The early issues of the publication would seem to bear out the editor's claims for it. There is a great variety of material of scientific, educational, historical, and practical interest. Particular attention is paid to the interests of students and beginners in the field, and a forum is established for the discussion of the problems of the junior accountant, either in or out of professional practice. The broad viewpoint and experience of the editor is evident throughout, and his selection of material is such as to appeal to a wide range of interests.

The standard subscription rate of the magazine is \$4.00 for one year, or \$8.25 for three years. The editorial and business offices are in the Hudson Terminal Building, New York City.

UNIVERSITY NOTES

UNIVERSITY OF ALABAMA

Mr. H. H. Chapman, associate professor of accounting, will be on leave of absence for the year 1927-1928. Mr. Chapman will hold a fellowship at Columbia University, where he will complete his graduate work. Mr. Chester H. Knight has been promoted to assistant professor of accounting and will have charge of the accounting work during Mr. Chapman's absence. J. R. Thomas has been added to the staff as instructor.

The enrollment in accounting courses the past year has been: elementary, 272; second-year, 96; advanced courses, 16-20.

BROWN UNIVERSITY

Professor W. A. Berridge leaves the department to go with the Metropolitan Life Insurance Co. as economist. Mr. A. F. Hinrichs will take charge of instruction in statistics and direct research activities of the Brown Bureau of Business Research.

Mr. G. E. Bigge comes from the University of Michigan as assistant professor of economics in charge of the work in labor and business administration. Mr. Thomas L. Norton, instructor in economics, leaves to continue his studies at Columbia University.

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

This institution has recently dropped the designation Southern Branch, and is now known as the University of California at Los Angeles.

Mr. Roy T. Culey, associate in accounting, is leaving to pursue further graduate work at Columbia University. Mr. Culey recently passed the examination of the American Institute.

Mr. Charles E. Leveson, assistant, is entering public accounting practice. Mr. Arthur Lorig, C. P. A., of the Los Angeles offices of Price Waterhouse, is to be associate in economics and accounting. Mr. Lorig is a graduate of the University of Wisconsin.

Professor Ira N. Frisbee is preparing a text in auditing. He will teach in the summer session at Berkeley this year.

UNIVERSITY OF COLORADO

The School of Business Administration was organized this year to succeed the School of Commerce, established in 1906. The course will consist of two years' work in the school preceded by two years of liberal arts.

Mr. F. Bushee, professor of economics and sociology, has been made acting dean and Mr. E. I. Fjeld, associate professor of accounting, is secretary. Five fields of work will be offered: general business administration, accounting, banking and finance, marketing, and secretarial work. Three years of accounting will be given by Professor Fjeld and Mr. Kendrick.

UNIVERSITY OF ILLINOIS

The following assistants in accounting are leaving this year: J. H. Flynn, R. E. Simmons, C. C. DeLong, D. R. Johnson. Mr. J. W. C. Harper comes from the University of New Mexico as instructor in accounting, Mr. E. E. Ray, from Ohio University as assistant in accounting. Mr. J. W. Hansen, formerly a member of the staff, has received his J. D. degree from Illinois and will assume the position of instructor in business law. Mr. Hansen also holds an M. S. in accounting.

Professor H. H. Baily has been granted sabbatical leave for 1927-1928 and will spend the year in travel and study in England and on the continent.

Professor Lloyd Morey's "Manual of Municipal Accounts" will be off the press of John Wiley & Sons in June; his text book on "Governmental Accounting" will appear in September from the same press.

Professor C. F. Schlatter's "Elementary Cost Accounting" will appear in September.

KANSAS STATE AGRICULTURAL COLLEGE

Mr. H. M. Stewart has been added to the staff this year. Mr. W. H. Rowe received the M. S. degree the past year.

New courses are being offered in auditing and income tax accounting.

UNIVERSITY OF KANSAS

Mr. L. S. Dayton is leaving to accept an assistantship at the University of California and to complete his work for the Ph. D. degree. Mr. J. M. Knappenberger (Illinois, 1918) is entering the department.

Professors Dade and Gagliardo have published a new book, "Installment Lending and Savings Tables." A full year course in business law is now required of accounting students.

UNIVERSITY OF KENTUCKY

Mr. Paul C. Taylor, associate professor of accounting, is leaving the department. Mr. W. E. Dickerson is being added to the staff as assistant professor of accounting and Mr. E. Z. Palmer as assistant professor of economics.

A revised edition of Dr. W. W. Jennings' "History of Economic Progress in the U. S." is being brought out by Crowell & Co.

The College of Commerce is adding nine new courses for next year.

MARQUETTE UNIVERSITY

Mr. M. R. Kneiff is publishing a series of articles on hospital accounting in "Hospital Progress." Mr. George W. Knick is preparing a publication on "Investment Trusts in the United States." The staff is meeting regularly to discuss research work being done by the different members.

The first-year course in accounting is using in mimeographed form a new text book by Professor Schmidt, "Mechanics of Accounting," which is built up almost entirely on the problem method.

Some fifteen students in accounting are obtaining practical business ex-

perience with business firms in Milwaukee and the arrangement is working out very satisfactorily. Contacts are made by the various instructors, salaries are determined by conference between student and employer, and some supervision over the work done is maintained by the college through conferences with the employer. Positions have been obtained with accounting firms and in general office work. A number of students have made permanent connections in this way and all have obtained needed experience.

UNIVERSITY OF MICHIGAN

Two new instructors, Mr. R. Coleman of Oregon Agricultural College and Mr. R. P. Briggs of Kansas Wesleyan University, have been added to the accounting staff for next year. Mr. A. W. Foscue, a member of the staff for three years, returns to Southern Methodist University.

Mr. H. F. Taggart will give the course in accounting systems in the School of Business Administration next year.

UNIVERSITY OF MINNESOTA

Mr. O. F. Kuhlman, instructor in accounting, is leaving the department to enter business. Mr. I. W. Alm (Minnesota, 1926) has been appointed teaching assistant in accounting.

During the winter quarter ten seniors in accounting left their class-work to engage as juniors with public accountants of the Twin Cities. They have now returned to the School for the spring quarter. Most of these seniors will be able to graduate with their class in June because of additional credits earned while in school; a few will complete their work at the end of the summer session.

The employment arrangement has worked very successfully in most cases. The students have been given unusual opportunities to aid in the making of audits and in a number of cases in the actual drawing up of reports on the work done. The employing accountants have expressed themselves as well satisfied with the quality of the work done. The work has been paid for at the usual scale for junior accountants. The department hopes that next year a few more seniors may be provided with this opportunity and that a little more supervision of the work on the part of the department may justify the allowing of a nominal amount of credit for the experience.

UNIVERSITY OF MONTANA

Dean S. J. Coon of the School of Business Administration goes to the University of Washington as professor of Economics. Dean Coon has also been acting as chairman of the department of economics since the death of Dr. Joseph H. Underwood. Mr. Robert C. Line, a graduate of Montana and of the Harvard School of Business Administration, and subsequently connected with the University of Minnesota, will be the new dean.

Mr. John A. Rees, instructor in business administration, has resigned to take a position with the Federal revenue department.

Miss Virginia Dixon will return to the department from a year spent in Europe.

Professor E. R. Sanford has been appointed chairman of the university committee on C. P. A. examinations. A movement is on foot to organize the practicing accountants of the state in a functioning body for mutual help.

NORTHWESTERN UNIVERSITY

Professor E. L. Kohler is leaving the department of accounting to devote his entire time to public accounting practice.

Mr. J. H. Bliss has been promoted to professor of accounting.

Professor Himmelblau has recently published "Auditor's Certificates" through the Ronald Press Company. Professor Himmelblau recently lectured before the Wisconsin State Bar Association on "Some Corporate Problems Created by Income Tax Laws."

A course in municipal accounting will be offered during the second semester next year by Professor Newton, now of the University of Oklahoma.

Arrangements are being made for next year to provide experience for a number of selected accounting students by placing them on the staffs of public accountants as juniors during the winter quarter. They will drop their school work entirely for the quarter and will return in the spring and complete their course in summer session. A faculty man will supervise the work and make certain that the students are receiving proper experience, and the student will be expected to prepare a report on his work which will entitle him to a nominal amount of credit.

A considerable number of public accountants have signified their willingness to cooperate in this scheme and the openings will be offered as a reward of merit in classroom work. If the method proves satisfactory it will be made a regular part of the training work of the department.

UNIVERSITY OF OKLAHOMA

Professor W. K. Newton will take a year's leave of absence in order to complete work for the Ph. D. at Northwestern University. He will be a teaching fellow there and will give the course in municipal accounts. Mr. Campbell of Drake University will take Mr. Newton's place with permanent tenure and rank of assistant professor.

Mr. Edmund Berrigan has been promoted to the rank of professor and head of the department of accounting. Mr. Berrigan has recently published "Elements of Accounting" with McGraw-Hill Book Co.

Graduates of the course in accounting will be permitted to take the state C. P. A. examination with one year's experience in place of the usual three years required of others. The accounting staff is considering opening an accounting office in order to provide practical contacts for the students.

Alpha Kappa Psi has a membership of sixty at the University this year.

UNIVERSITY OF PITTSBURGH

Two new instructors in accounting have been added to the staff, Messrs. G. R. Easterly and H. D. Edwards. Mr. R. D. Byers has been made professor of accounting.

Professor Charles Reittel, head of the department of accounting, has re-

ceived the first prize offered by the N. A. C. A. for the best article submitted in a contest on "Presentation of Costs for Executives." Professor Reiteil has prepared for the Pennsylvania Industrial Survey Association a book on "Shift in Soft Coal Shipments." He also is preparing two other monographs for the Survey on problems in the soft coal industry.

A two-semester course in elementary accounting is to be given in the freshman year and not in the sophomore year as previously. A further two-semester course will be required of those wishing to pursue more advanced work in accounting.

ST. LOUIS UNIVERSITY

Mr. R. V. Phelan, formerly of Wisconsin and Minnesota Universities, has joined the staff as professor of business management. Mr. E. B. Anthony, formerly of the University of Pittsburgh, is receiving his doctorate in June.

The School of Commerce and Finance is trying out a plan of placement training which is proving quite satisfactory. During the second semester two days a week are being spent in work with St. Louis business concerns. The work is done without remuneration and is under supervision of a member of the staff in charge of placement. Credit is given towards a degree for the work. Students who do not elect to do this work are assigned research projects to occupy an equivalent amount of time.

So far employment has not been difficult to obtain and most of the positions have given a proper amount of valuable experience. It is likely, however, that the experience would prove more valuable if concentrated in two or three months of uninterrupted work.

SYRACUSE UNIVERSITY

Mr. E. Siebert has been appointed assistant in accounting. Mr. A. C. Ross, instructor in accounting, expects to receive his M. S. in business this summer.

Professor G. E. Bennett, head of the department of accounting, has completed a book on "Elements of Municipal Accounting" for use in the School of Citizenship and Public Affairs. Research work done in the department includes studies of dividends under New York corporation laws, laws and decisions of New York relating to accounting, and also two master's theses on internal check and executive reports.

Theta Phi Lambda, accounting fraternity, has a membership of twenty-five this year. Some fifteen seniors in accounting have been used as auditors in the campaign for the Syracuse community chest, under the supervision of a firm of certified accountants. The students were rated by those in charge but no salary was paid. During the rush season two seniors were excused from classes for a period of ten days each to assist in certain audits performed by local firms.

UNIVERSITY OF TEXAS

Mr. F. W. Woodbridge, adjunct professor of accounting, goes to Lehigh University as associate professor. Mr. B. F. Harrison, assistant to the president, Texas A. & M. College, is to be a lecturer in accounting here. Mr. L.

B. Raisty of Iowa and Mr. W. G. Rich of Texas are new instructors in accounting.

Mr. C. A. Smith, instructor in accounting, has received the C. P. A. in Texas. Mr. L. B. Raisty received his M. B. A. here. Mr. Chester F. Lay, professor of accounting, represented the Southwest at the annual meeting of the Taylor Society at New York.

The accounting curriculum is to be divided into two major programs, "Public Accounting" and "Managerial Accounting." Two new courses are being offered to make this possible, an intermediate course in Managerial Accounting and a senior course on Business Control, both given by Professor Lay.

The University has recently changed to the semester plan, which will mean a change in the department requirements for business experience. This year seniors have been required for graduation to have completed two or three quarters of business experience, which it has been possible for them to obtain during the winter quarter in public accountants' offices. More positions have been available than were needed so far since the students worked as juniors during the heavy season and could be released in March. Salaries have ranged from \$75 to \$135. Under the new plan it will be necessary to employ the men from February to June and it is considered doubtful if this will prove to be satisfactory to the public accountants.

Students will now be required to have had three to six months of business experience for graduation. No credit is given for this experience toward a degree, but it remains an absolute requirement.

